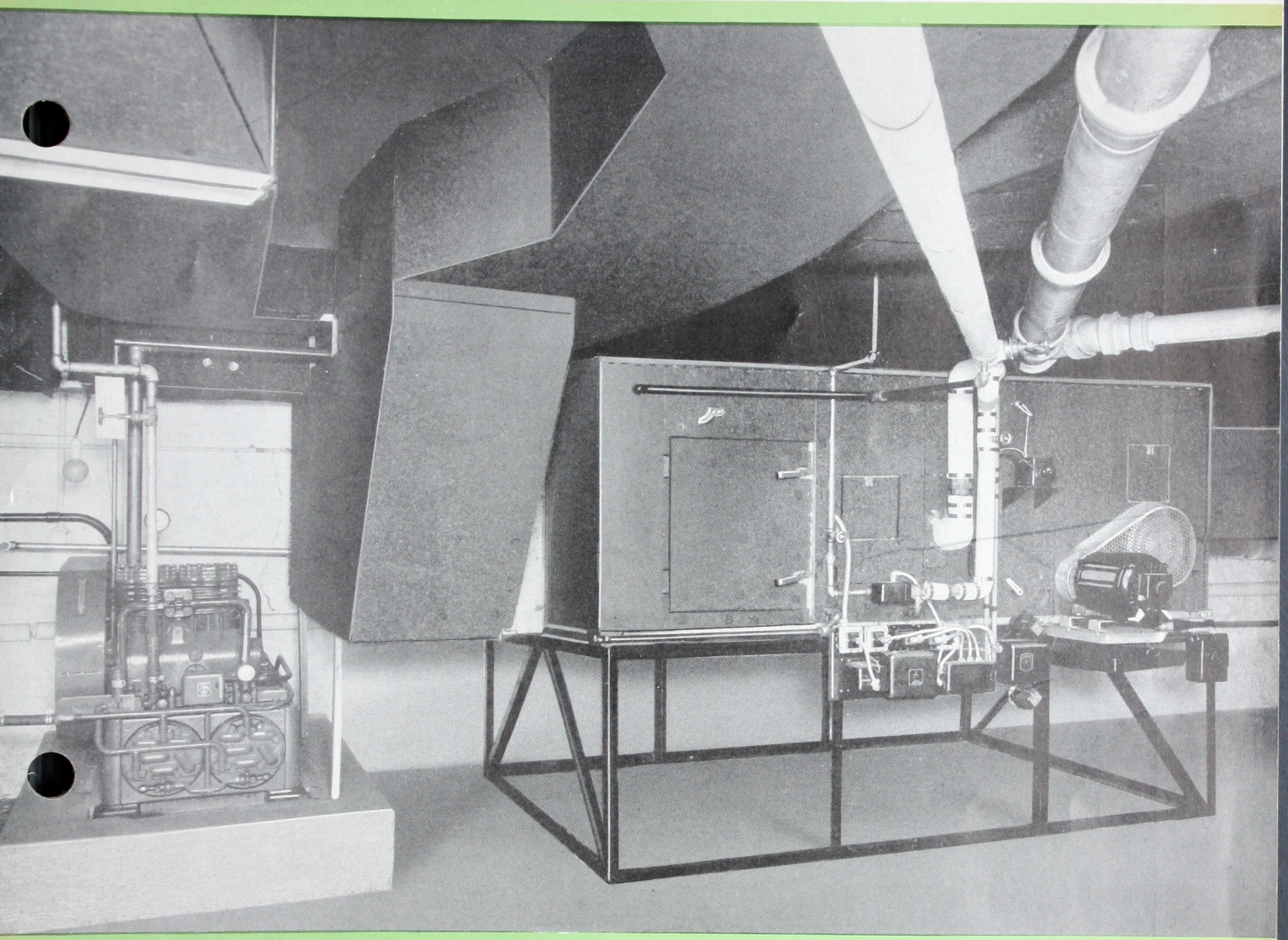


"Buffalo"

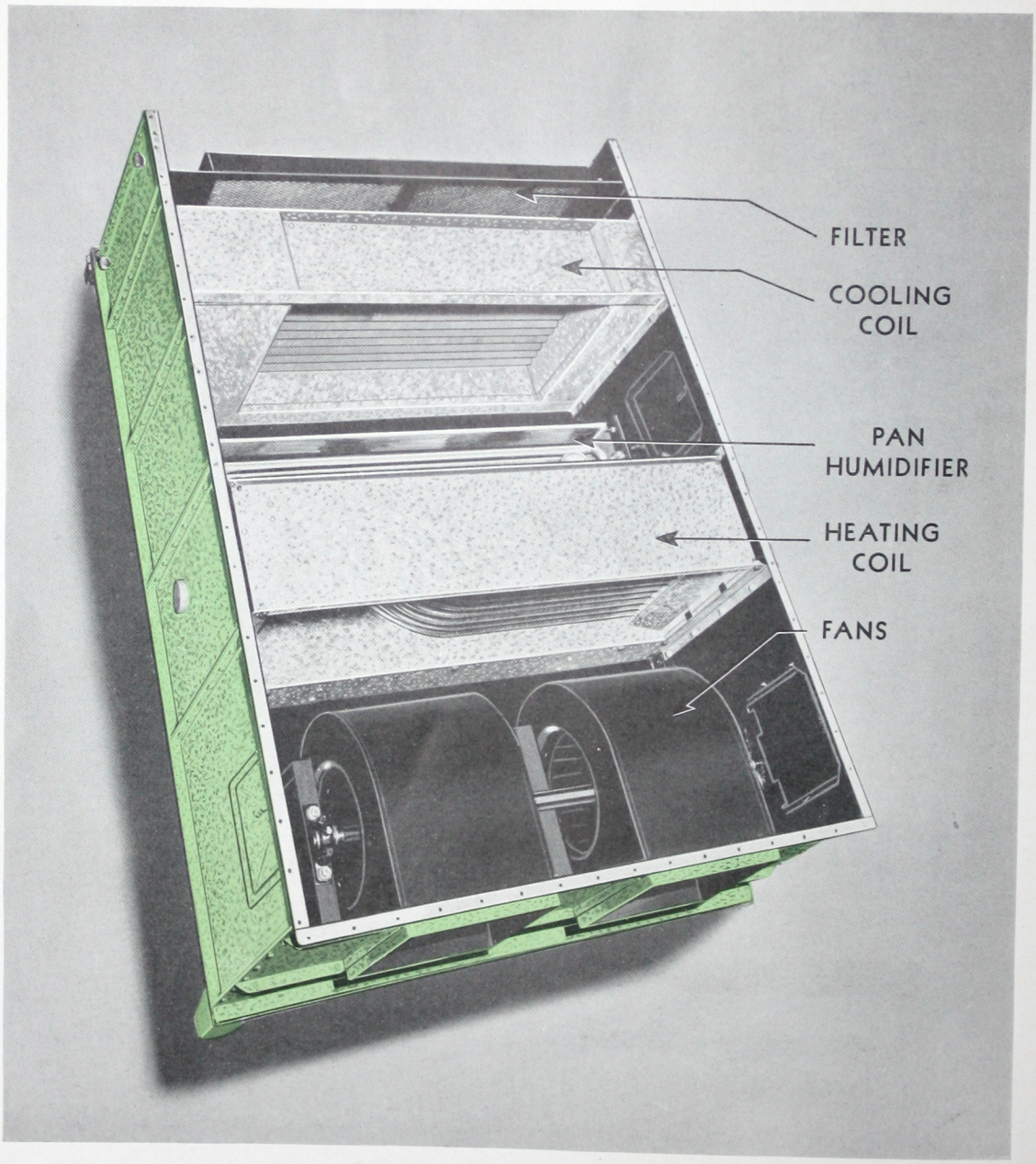
Type "PC" Central Air Conditioning Cabinets

BULLETIN No. 501-B

Buffalo Forge Company

Buffalo, New York

In Canada . . . Canadian Blower and Forge Co., Ltd., Kitchener, Ontario



BUFFALO TYPE "PC" CABINET WITH TOP REMOVED

SPECIFICATIONS --- Buffalo Type "PC" Central Conditioning Cabinets

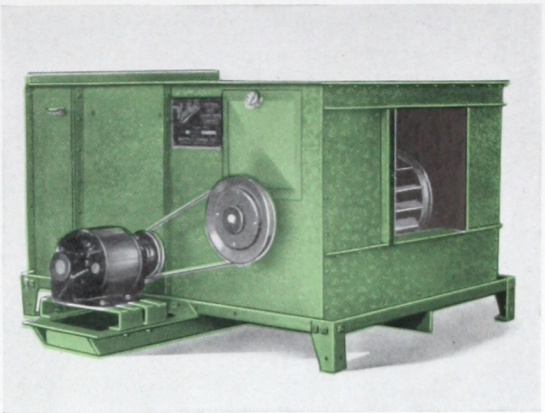
BUFFALO Central Conditioning Cabinets, are available in capacities of from 3 to 36 tons and in combinations suitable for simple cooling or complete air conditioning, including summer cooling and dehumidifying, winter heating and humidifying and year 'round cleaning. Any or all of the above functions may be automatically controlled when desired.

The base of this unit which also acts as a drip pan for collection of condensate is of extra heavy welded steel plate fitted with drain connection. Short legs are bolted to each corner of the pan. For ceiling suspension, these legs may be removed and rods substituted.

Casings are panelled type of galvanized iron, removable in sections. Doors are provided for access to bearings and humidifier. Casings, fan housings and pans are painted on interior with asphaltum.

Fans are of the centrifugal multi-blade type, of high efficiency with graphite and bronze sleeve bearings floated on rubber. Pipes are furnished extending from each bearing to an external oil cup so that bearings can be conveniently oiled. Fan shafts are extended thru side of casing for driving from motor mounted on rubber isolated motor base attached to outside of casing. Standard bases are adjustable to receive different frame motors. When desired, unit can be furnished with motor mounted inside casing on isolated base, all readily serviced thru access door.

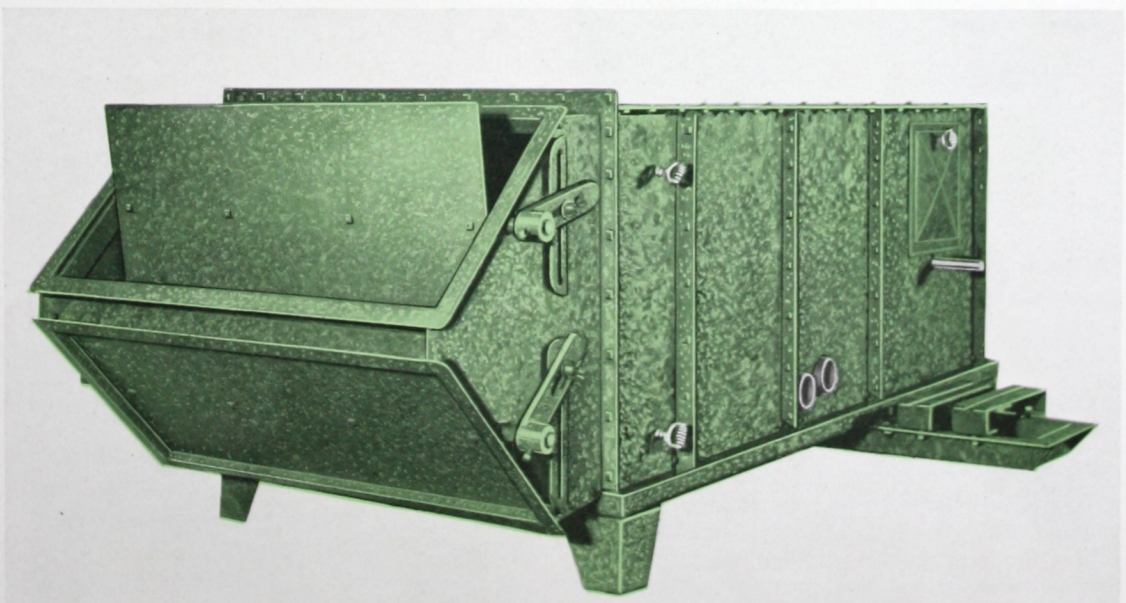
Cooling coils are Aerofin copper fin type, suitable for direct expansion of Freon or Methyl Chloride. They are furnished complete with headers to simplify the installation and minimize the number of expansion valves. These headers are scientifically designed for uniform distribution of refrigerant to the individual circuits. Both liquid and suction header connections extend thru side of casing for ease of assembly of valves and connections.



A 3-ton Cooling Unit with one fan

Copper fin coils are available for circulation of cold water in place of the standard direct expansion coils. These water coils can also be used as precooling coils in conjunction with direct expansion coils.

Heating coils are one or two row Aerofin copper fin type suitable for high or low pressure steam or hot water. The two row coil has individual steam and drip connections for each row.



"PC" Cabinet with heating coil, space for future cooling coil and damper section

SPECIFICATIONS --- Buffalo Type "PC" Central Conditioning Cabinets

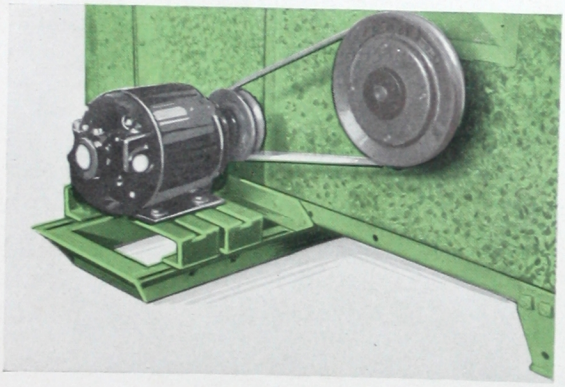
Two types of humidifiers are available:

1.—Spray type. Self atomizing spray nozzles are located in space between heating coil and filter.

2.—Pan type. They are all copper construction complete with float valve for maintaining water level.

Oil pipe extends to liberal size external oil cup

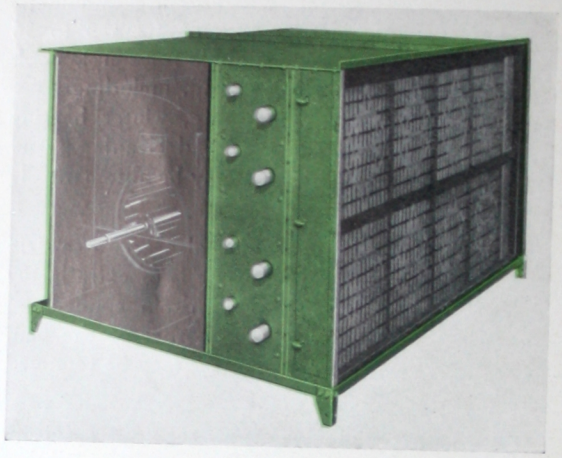
Filters are dry throw-away type of standard size and are readily removable from either side of unit thru hinged doors.



Adjustable Motor Base attached to outside of cabinet. Motor rubber isolated from base.

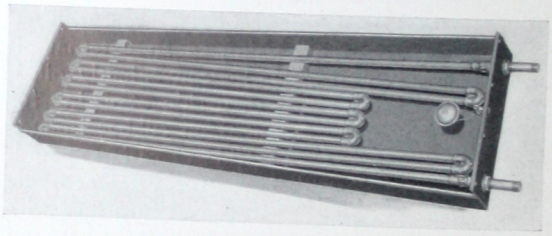
Cabinets may be obtained either completely insulated or with only an insulated pan.

One of the outstanding features of "Buffalo" P. C. Cabinets is the minimizing of air noise and elimination of vibration and chatter. Bearings are rubber insulated. Cabinet design, based on our fifty years experience building fans and ventilating equipment, is stiff and substantial without unnecessary weight.



"PC" Cabinet for 30-ton cooling installation. Note few coil connections necessary.

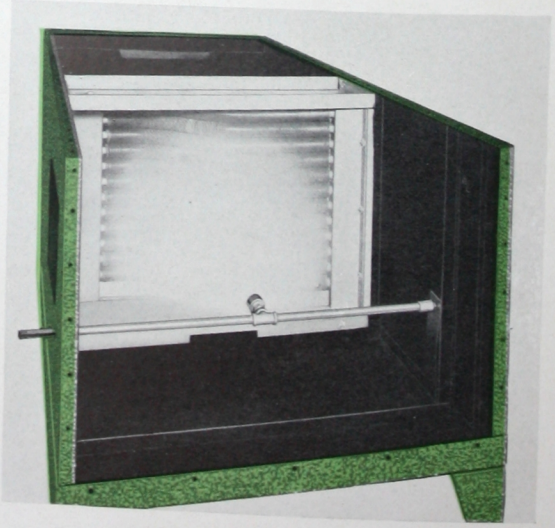
Vertical cabinets are also available in the same range of sizes, built to order.



Pan Humidifier, all copper construction

A standardized damper section is available for attachment to the intake end of the cabinet. This damper is to control fresh and return air. By-pass dampers are also available.

See pages 8 and 9 for more complete details of the by-pass application.



Spray Type Humidifier

Quiet Operation

FOR economy, it is desirable to select the smallest possible size of cabinet, the limit usually being the air capacity that can be handled without excessive noise. Buffalo "PC" Cabinets will operate quietly at 100 per cent base CFM capacity against total resistances up to one inch for the average installation. By average installation is meant a small store, an office, a dining room, theater, etc. with the unit located outside the room being conditioned. If the unit supplies air to a room having a rather high normal sound level such as a department store, general office, restaurant, or tap room, capacities up to 125 per cent may be used with safety. For extremely quiet operation such as required in homes, churches, or small private offices, air capacities between 75 per cent and 100 per cent of normal should be selected, or some sound-absorbing material used between the unit and the grilles.

Fan Static Pressure	Sound Factor					
	A	B	C	A′	B′	C′
½″	.89	.83	.70	.85	.79	.67
⅝	.94	.88	.74	.89	.83	.71
¾	.99	.92	.78	.94	.88	.75
⅞	1.03	.96	.82	.98	.92	.78
1	1.07	1.00	.85	1.02	.95	.81
1¼	1.13	1.05	.90	1.08	1.01	.86
1½	1.18	1.10	.94	1.13	1.05	.90
½	.93	.86	.73	.88	.83	.70
⅝	.96	.90	.76	.92	.85	.73
¾	1.00	.93	.79	.96	.89	.76
⅞	1.03	.96	.81	.98	.92	.78
1	1.06	.99	.84	1.01	.94	.80
1¼	1.11	1.04	.88	1.06	.99	.84
1½	1.17	1.09	.92	1.11	1.04	.89
½	.99	.92	.78	.94	.89	.76
⅝	1.02	.95	.80	.96	.91	.77
¾	1.04	.97	.82	.99	.93	.79
⅞	1.06	.99	.84	1.01	.94	.81
1	1.08	1.01	.85	1.03	.96	.82
1¼	1.12	1.05	.88	1.07	1.00	.85
1½	1.16	1.08	.92	1.11	1.03	.88

75% Base CFM

100% Base CFM

125% Base CFM

Arrangement A—Six feet of unlined metal duct.
B—Six feet of metal duct with simple felt lining.
C—Six feet of metal duct with best acoustical lining.
A′, B′, C′ same as A, B and C, respectively with the addition of one felt lined elbow.

While great advances have been made in recent years in sound measurement and the sound level of the cabinets themselves has been thoroughly investigated, it is impossible to anticipate the exact noise level of any given installation due to the many variables affecting the sound absorption between the unit and the room. The acoustics of the room itself, the building construction, the physical conformation and construction material of the duct work all have an influence. The proper selection is still a matter of good judgment. The adjacent table, based on actual tests, arbitrarily selects a condition of 100 per cent CFM at ¾″ S. P. as 100 per cent sound level of the unit itself and gives comparative sound levels with various CFM, static pressure, and acoustical duct treatment in per cent decibels. This table will serve as a useful guide in comparing various installations and in determining when acoustical duct lining is desirable.

Vertical Cabinet with By-Pass Damper

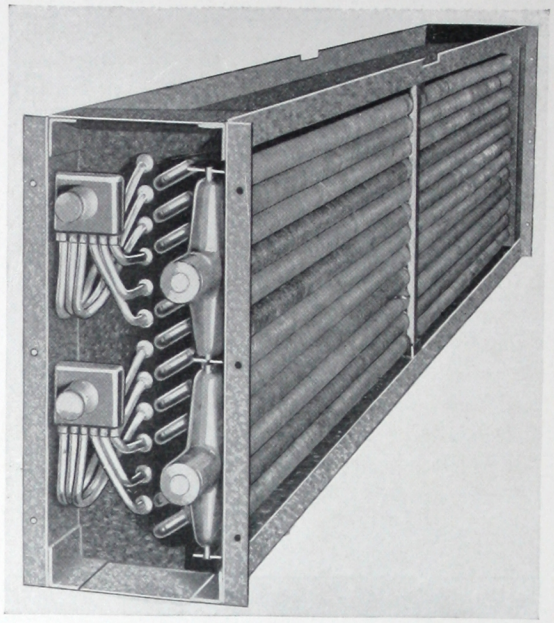
For example, if a room came under the classification of average, we know that 100 per cent CFM capacity at ¾″ to 1″ S. P. would usually be satisfactory. The sound level in this range is given as 100 to 106 per cent. If space limitations made necessary the selection of a unit at, say 125 per cent CFM and 1½″ S. P., it is seen that the addition of acoustical treatment for column B′ or C would reduce the sound the required amount.

Surface Cooling

THE fundamental theory of cooling air in passing over a coil surface whose temperature is below the initial dew point of the air is that the air is cooled a certain percentage of the way between its initial dry bulb temperature and the dry bulb temperature of the coil surface; and the total heat of the air is reduced the same percentage of the way between its initial total heat content and the total heat content of air at the coil surface.

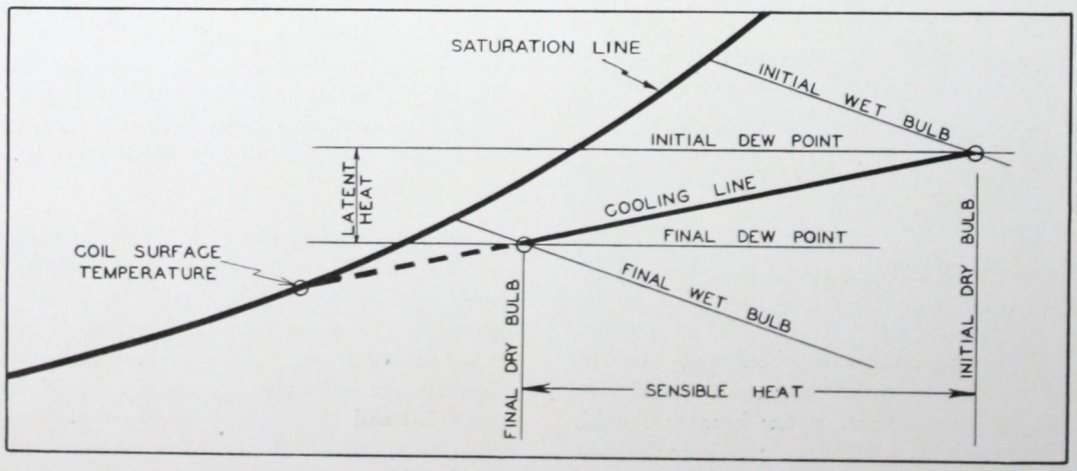
This theory may be shown graphically on a psychrometric chart by the line drawn from the initial conditions to a point on the saturation curve representing the coil surface temperature. This line represents the path of cooling. The per cent cooling, or the distance along the line which the air is cooled depends on the amount of surface in the coil or for any one design of coil on the number of rows deep. Since this psychrometric chart is drawn with moisture content as ordinates and dry bulb temperature as abscissae, it is seen that the steeper this line, the more moisture is removed. In other words, the ratio of total heat removal to sensible heat removal depends on the slope of this line. It should be noted that with surface cooling, it is not necessary to cool the air to a saturated temperature at the final dew point desired. By the proper selection of coil and refrigerant, the air may be cooled directly to the desired final condition.

If it is desired to cool air from a definite initial condition to a definite final condition, a definite coil surface temperature is required. Since the coil surface temperature depends mainly on the refrigerant temperature and can only be changed within close limits by variation of air velocity or refrigerant velocity, the necessary refrigerant temperature is practically fixed for any given initial air condition and ratio of total heat load to sensible heat load. If the refrigerant temperature is fixed as is frequently the case with cold water, then the ratio of total heat removal to sensible heat removal is fixed for any given entering condition. In case this ratio does not agree with the loads required by the room, the room conditions must be changed to correspond.



Aerofin Direct Expansion Cooling Coil

Refer to page 27 for complete Psychrometic chart.



Direct Expansion Coils

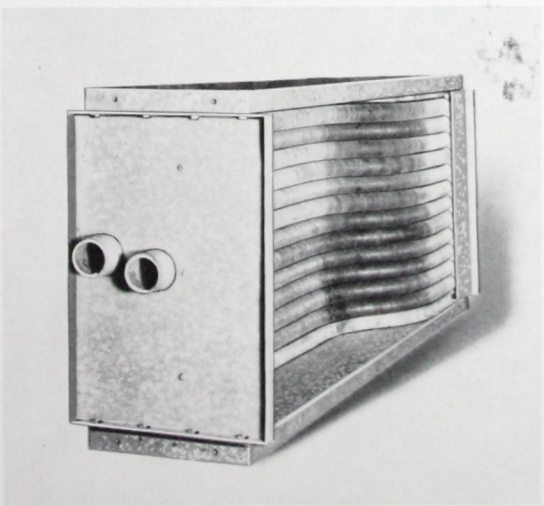
THE total heat and sensible heat extraction for various entering wet and dry bulb temperatures, and various refrigerant temperatures may be obtained from the direct expansion cooling tables on pages 10 to 17. These capacities are given per hundred CFM and apply to all sizes of cabinets when handling their base CFM capacity, as given in physical data table, page 30. If the actual CFM handled varies 10 per cent or less from the base CFM, they may be used without appreciable errors. For greater variations in CFM, they should be corrected in accordance with the air velocity factor curve, page 24.

These coils are suitable for direct expansion of Freon or Methyl Chloride.

The arrangement of circuits readily lends itself to split coil control. Each circuit has a liquid header scientifically designed for uniform distribution of refrigerant to the individual tubes.

Each coil has a row of super-heater tubes to insure the refrigerant temperature corresponding to the suction pressure inside the main coil. This provides the super-heat necessary for proper operation of the valve without affecting the performance of the main coil and makes it immaterial whether the coil is installed for counter-flow or parallel-flow.

Separate expansion valves are recommended for each circuit. Recommended sizes of liquid and suction lines are given on page 29. Cubical contents of coils for determination of refrigerant charge may be obtained from the physical data table on page 30.

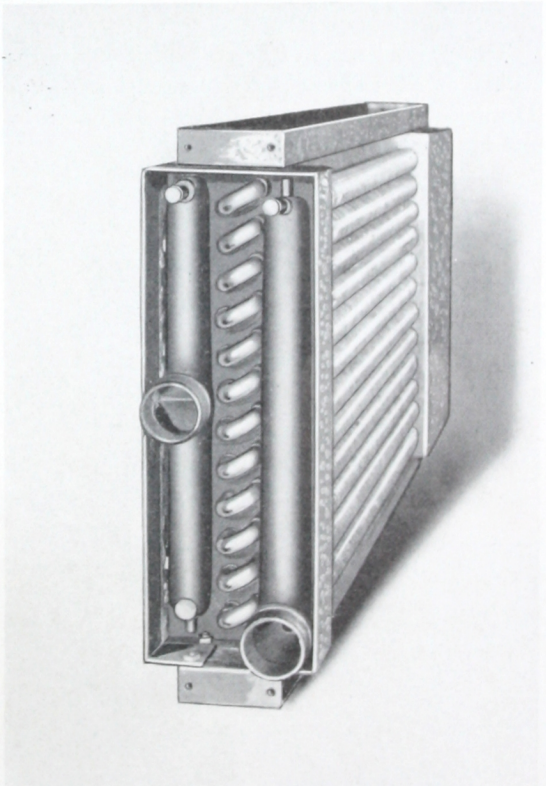


Aerofin Heating Coil with Individual Header for each row

Water Cooling Coils

The total and sensible heat capacities for various entering air conditions and water temperatures are given in the water cooling tables on pages 18 to 23. These capacities are per 100 CFM and apply to all sizes of cabinets when handling their base CFM capacity as given in the physical data table on page 30 and supplied with the GPM water listed in this table. For other air capacities the Btu/100 CFM should be corrected in accordance with the air velocity factor curve. For water flow other than standard, the Btu/100 CFM should also be corrected in accordance with the water velocity factor curve, page 25.

Coils are serpentine construction giving full counter flow between air and water.



Aerofin Water Cooling Coil

Heating Coils

The Btu. capacities for various entering air conditions are given in the heating chart on page 24.

Coils are Flexitube Aerofin construction. Note that two-row coils are furnished with separate steam and drip header for each row of coil so that temperature control can be furnished for each row. This arrangement is desirable for the prevention of overheating or freezing up of coils.

By-Pass Dampers

BUFFALO FORGE COMPANY is licensed to manufacture conditioning cabinets utilizing the Auditorium By-Pass patents.

In the By-Pass system, the full supply of air is kept circulating to and thru the rooms and back to the conditioner. Only a portion of the air is cooled. The balance of the return air by-passes the conditioner, mixes with and reheats the air that has gone thru the conditioner. Then by correct adjustment between the two portions, the temperature and relative humidity of the air supply to the rooms are controlled. By limiting the cooling in the conditioner to the actual heat load the refrigeration is always limited to the actual needs, thus furnishing the most economical design in both first cost and operation.

Two general types of by-pass dampers are furnished on PC Cabinets. (A)—Return Air By-Pass Damper, (B)—Face and By-Pass Dampers by-passing a mixture of fresh and return air.

Fig. 1 illustrates "A" type Return Air By-Pass Damper. Return air only is by-passed and all fresh air is cooled at all times. Maximum Dehumidification is obtained and reheating is done with the dryest air possible. This arrangement is best suited for use with a large latent heat load. Dampers can be placed in either the top or side of the cabinet, but most conveniently in the top since it is not necessary to increase the length of the cabinet.

Fig. 2 illustrates "B" type Face and By-pass Dampers. Both fresh and return air is by-passed. With this arrangement the cross sectional area of the cabinet must be increased to provide space for by-pass inside the cabinet. This arrangement is best suited for use with a large sensible heat load. While slightly more expensive than the "A" type dampers, the "B" type requires simpler sheet metal connections. Also all the air passes thru filters furnished in the standard cabinet arrangement.

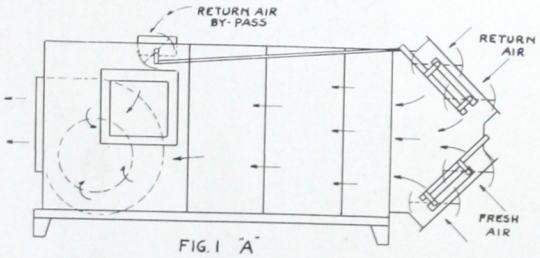


FIG. 1 "A"

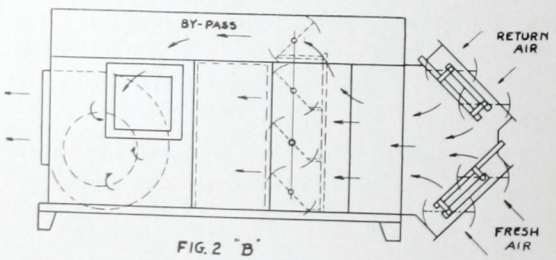
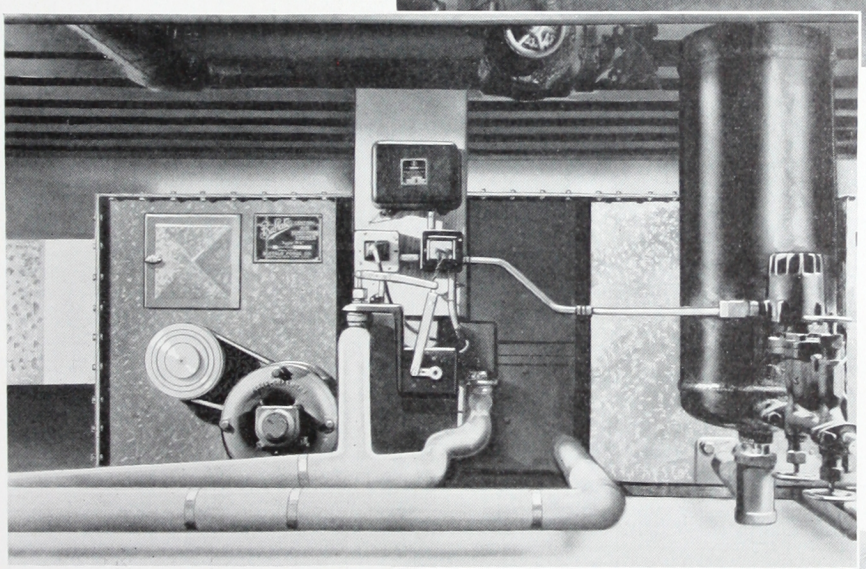


FIG. 2 "B"

Cabinet with Style "A" By-Pass Damper in Top

This sweet shop enjoys increased patronage and eliminates spoilage with a "PC" Cooling Cabinet.



Installation view of "PC" Cabinet with water cooling coils.

This department store is completely air conditioned with Buffalo "PC" Cabinets.

DIRECT EXPANSION COOLING—TEMPERATURE CHART

2 ROWS — Buffalo Type "PC" Central Conditioning Cabinets — **2 ROWS**

ENT WB 58

ENT D.B.			68		72		76	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	2565	48.1	1788	51.3	2020	53.1	2260	54.9
35	2215	49.4	1550	53.5	1785	55.3	2020	57.1
40	1764	51.3	1340	55.5	1592	57.1		
45	1300	53.1	1125	57.5				
50								

ENT WB 60

ENT D.B.			68		72		76	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	2805	49.4	1745	51.7	1980	53.5	2215	55.3
35	2445	50.9	1510	53.9	1745	55.7	1980	57.5
40	1980	52.7	1306	55.8	1540	57.6	1778	59.4
45	1515	54.5	1085	57.8	1320	59.6		
50	1033	56.4	880	59.8				

ENT WB 62

ENT D. B.			68		70		72		74		76		78		80	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	3080	50.7	1690	52.2	1810	53.1	1925	54.0	2045	54.9	2160	55.8	2280	56.7	2400	57.6
35	2680	52.3	1465	54.3	1585	55.2	1700	56.1	1820	57.0	1935	57.9	2055	58.8	2170	59.7
40	2212	54.2	1250	56.3	1370	57.2	1490	58.1	1605	59.0	1722	59.9	1840	60.8	1960	61.7
45	1750	55.9	1045	58.2	1165	59.1	1280	60.0	1395	60.9	1515	61.8	1630	62.7	1750	63.6
50	1250	57.7	835	60.2	922	61.1	1070	62.0	1188	62.9						

ENT WB 64

ENT D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	3360	52.1	1875	54.5	1990	55.4	2110	56.3	2225	57.2	2345	58.1	2460	59.0	2580	59.9
35	2930	53.8	1660	56.5	1775	57.4	1895	58.3	2010	59.2	2130	60.1	2250	61.0	2365	61.9
40	2460	55.6	1445	58.5	1560	59.4	1685	60.3	1800	61.2	1935	61.9	2035	63.0	2150	63.9
45	2000	57.3	1235	60.4	1355	61.3	1470	62.2	1590	63.1	1705	64.0	1825	64.9	1940	65.8
50	1500	59.1	1027	62.4	1145	63.3	1262	64.2	1380	65.1	1500	66.0				

ENT WB 65

ENT D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	3480	52.9	1862	54.6	1980	55.5	2095	56.4	2215	57.3	2335	58.2	2450	59.1	2570	60.0
35	3065	54.5	1635	56.7	1755	57.6	1870	58.5	1990	59.4	2110	60.3	2225	61.2	2340	62.1
40	2620	56.2	1430	58.6	1550	59.5	1663	60.4	1780	61.3	1900	62.2	2020	63.1	2140	64.0
45	2115	58.0	1215	60.6	1335	61.5	1450	62.4	1570	63.3	1685	64.2	1800	65.1	1920	66.0
50	1635	59.7	1005	62.6	1125	63.5	1240	64.4	1360	65.3	1475	66.2	1595	67.1		

ENT WB 66

ENT D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	3630	53.6	1945	55.8	2065	56.7	2180	57.6	2300	58.5	2420	59.4	2535	60.3	2650	61.2
35	3200	55.2	1735	57.8	1850	58.7	1970	59.6	2085	60.5	2205	61.4	2320	62.3	2440	63.2
40	2710	57.0	1520	59.8	1635	60.7	1755	61.6	1870	62.5	1990	63.4	2105	64.3	2225	65.2
45	2230	58.7	1310	61.7	1430	62.6	1545	63.5	1665	64.4	1780	65.3	1900	66.2	2015	67.1
50	1750	60.4	1100	63.7	1220	64.6	1340	65.5	1455	66.4	1572	67.3	1690	68.2		

ENT WB 67

ENT D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	3760	54.4	1935	55.9	2045	56.9	2160	57.8	2280	58.7	2400	59.6	2515	60.5	2635	61.4
35	3330	56.0	1710	58.0	1830	58.9	1945	59.8	2060	60.7	2180	61.6	2295	62.5	2415	63.4
40	2860	57.7	1490	60.0	1610	60.9	1730	61.8	1845	62.7	1965	63.6	2080	64.5	2195	65.4
45	2370	59.4	1290	61.9	1405	62.8	1525	63.7	1640	64.6	1760	65.5	1875	66.4	1995	67.3
50	1900	61.1	1080	63.9	1200	64.8	1315	65.7	1435	66.6	1550	67.5	1670	68.4	1785	69.3

ENT WB 68

ENT D.B.			76		78		80		82		84		86		88	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	3910	55.2	2010	57.2	2130	58.1	2245	59.0	2365	59.9	2480	60.8	2600	61.7	2720	62.6
35	3465	56.8	1810	59.1	1925	60.0	2040	60.9	2155	61.8	2275	62.7	2390	63.6	2510	64.5
40	3000	58.5	1582	61.2	1700	62.1	1820	63.0	1935	63.9	2055	64.8	2170	65.7	2290	66.6
45	2500	60.2	1385	63.0	1505	63.9	1620	64.8	1740	65.7	1855	66.6	1975	67.5	2090	68.4
50	2000	61.9	1176	65.0	1295	65.9	1410	66.8	1530	67.7	1650	68.6	1765	69.5	1883	70.4

ENT WB 69

ENT D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4050	55.9	2110	58.3	2225	59.2	2355	60.1	2460	61.0	2580	61.9	2700	62.8	2815	63.7
35	3595	57.6	1895	60.3	2015	61.2	2130	62.1	2250	63.0	2365	63.9	2480	64.8	2600	65.7
40	3128	59.2	1683	62.2	1800	63.1	1920	64.0	2035	64.9	2154	65.8	2275	66.7	2390	67.6
45	2650	60.9	1480	64.2	1595	65.1	1710	66.0	1830	66.9	1950	67.8	2065	68.7	2180	69.6
50	2150	62.5	1275	66.1	1390	67.0	1510	67.9	1625	68.8	1745	69.7	1860	70.6	1980	71.5

TH—Total heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

2 ROWS

DIRECT EXPANSION COOLING—TEMPERATURE CHART

Buffalo Type "PC" Central Conditioning Cabinets

2 ROWS

ENT WB			70													
D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4200	56.7	2080	58.6	2200	59.5	2320	60.4	2435	61.3	2550	62.2	2670	63.0	2785	64.0
35	3750	58.3	1870	60.5	1990	61.4	2105	62.3	2225	63.2	2340	64.1	2455	65.0	2575	65.9
40	3280	59.9	1650	62.6	1770	63.5	1890	64.4	2005	65.3	2125	66.2	2245	67.0	2355	68.0
45	2780	61.6	1450	64.4	1570	65.3	1685	66.2	1805	67.1	1920	68.0	2040	68.9	2155	69.8
50	2280	63.2	1245	66.4	1365	67.3	1480	68.2	1605	69.0	1710	70.0	1835	70.9	1950	71.8

ENT WB			71													
D.B.			80		82		84		86		88		90		92	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4350	57.5	2180	59.6	2300	60.5	2420	61.4	2535	62.3	2655	63.2	2760	64.1	2890	65.0
35	3880	59.1	1970	61.6	2080	62.5	2200	63.4	2315	64.3	2435	65.2	2550	66.1	2670	67.0
40	3410	60.7	1753	63.6	1870	64.5	1990	65.4	2110	66.3	2225	67.2	2342	68.1	2460	69.0
45	2915	62.4	1540	65.6	1660	66.5	1775	67.4	1895	68.3	2010	69.2	2130	70.1	2250	71.0
50	2435	63.9	1340	67.5	1455	68.4	1575	69.3	1690	70.2	1810	71.1	1925	72.0	2040	72.9

ENT WB			72													
D.B.			82		84		86		88		90		92		94	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4500	58.3	2260	60.9	2380	61.8	2500	62.7	2615	63.6	2730	64.5	2850	65.4	2975	66.2
35	4030	59.9	2055	62.8	2175	63.7	2290	64.6	2410	65.5	2525	66.4	2645	67.3	2760	68.2
40	3560	61.5	1840	64.8	1960	65.7	2075	66.6	2192	67.5	2310	68.4	2430	69.3	2540	70.2
45	3065	63.1	1630	66.7	1750	67.6	1865	68.5	1985	69.4	2105	70.3	2220	71.2	2335	72.1
50	2560	64.7	1430	68.7	1545	69.6	1665	70.5	1780	71.4	1900	72.3	2020	73.2	2135	74.0

ENT WB			73													
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4650	59.2	2365	61.9	2480	62.8	2600	63.7	2705	64.6	2835	65.5	2955	66.4	3080	67.2
35	4195	60.6	2150	63.9	2265	64.8	2380	65.7	2495	66.6	2620	67.5	2735	68.4	2850	69.3
40	3690	62.3	1935	65.9	2060	66.8	2175	67.7	2290	68.6	2410	69.5	2515	70.4	2640	71.3
45	3230	63.7	1725	67.9	1840	68.8	1960	69.7	2080	70.6	2195	71.5	2310	72.4	2430	73.3
50	2730	65.4	1520	69.8	1635	70.7	1755	71.6	1875	72.5	1990	73.4	2110	74.3	2225	75.2

ENT WB			74													
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	S.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4775	60.0	2330	62.2	2450	63.1	2565	64.0	2685	64.9	2800	65.8	2920	66.7	3050	67.5
35	4345	61.4	2120	64.2	2240	65.1	2355	66.0	2470	66.9	2590	67.8	2710	68.7	2825	69.6
40	3845	63.0	1910	66.2	2030	67.0	2140	68.0	2260	68.9	2380	69.8	2495	70.7	2615	71.6
45	3365	64.6	1700	68.1	1815	69.0	1935	69.9	2055	70.8	2170	71.7	2290	72.6	2405	73.5
50	2845	66.2	1500	70.0	1605	71.0	1730	71.9	1845	72.8	1965	73.7	2080	74.6	2200	75.4

ENT WB			75													
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4960	60.7	2300	62.5	2420	63.4	2535	64.3	2665	65.2	2770	66.1	2900	66.9	3020	67.8
35	4495	62.2	2090	64.4	2215	65.3	2330	66.2	2445	67.1	2560	68.0	2680	68.9	2800	69.8
40	4010	63.8	1888	66.4	2000	67.3	2120	68.2	2240	69.1	2360	70.0	2460	70.9	2600	71.8
45	3530	65.3	1675	68.3	1790	69.2	1910	70.1	2030	71.0	2145	71.9	2265	72.8	2380	73.7
50	3065	66.7	1465	70.3	1585	71.2	1700	72.1	1825	73.0	1935	73.9	2055	74.8	2170	75.7

ENT WB			76													
D.B.			86		88		90		92		94		96		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5110	61.6	2390	63.7	2515	64.5	2625	65.5	2745	66.3	2860	67.3	3000	68.0	3115	68.9
35	4645	63.1	2185	65.6	2300	66.5	2420	67.4	2535	68.3	2655	69.2	2770	70.1	2890	71.0
40	4175	64.6	1965	67.6	2090	68.5	2200	69.4	2325	70.3	2440	71.2	2565	72.1	2665	73.0
45	3680	66.1	1765	69.5	1885	70.4	2000	71.3	2120	72.2	2240	73.1	2355	74.0	2470	74.9
50	3160	67.6	1560	71.4	1675	72.3	1800	73.2	1910	74.1	2033	75.0	2145	75.9	2265	76.8

ENT WB			78						80							
D.B.			90		94		98				90		94		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5460	63.2	2570	66.0	2800	67.8	3050	69.5	5800	64.8	2515	66.5	2750	68.3	3000	70.0
35	4995	64.6	2355	68.0	2590	69.8	2830	71.6	5330	66.3	2295	68.5	2530	70.3	2770	72.1
40	4500	66.2	2150	69.9	2385	71.7	2600	73.6	4840	67.8	2080	70.5	2310	72.4	2555	74.1
45	4010	67.6	1940	71.8	2180	73.6	2415	75.4	4350	69.2	1885	72.4	2120	74.2	2355	76.0
50	3500	69.1	1735	73.8	1970	75.6	2210	77.3	3800	70.7	1685	74.2	1920	75.0	2155	77.8

TH—Total heat in B. T. U. per hour per Hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

DIRECT EXPANSION COOLING—TEMPERATURE CHART

3 ROWS

Buffalo Type "PC" Central Conditioning Cabinets

3 ROWS

ENT WB	58								60							
D.B.			68		72		76				68		72		76	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	3375	44.4	2310	46.4	2610	47.6	2900	48.9	3700	45.5	2270	46.8	2560	48.1	2680	49.3
35	2900	46.5	2070	49.2	2300	50.5	2600	51.7	3200	47.7	1963	49.6	2265	50.9	2560	52.1
40	2350	48.9	1720	51.9	2015	53.2	2310	54.4	2650	50.1	1680	52.3	1975	53.6	2270	54.8
45	1685	51.6	1460	54.3					1975	52.8	1415	54.8	1710	56.0		
50	1075	54.0							1375	55.1	1125	57.5				

ENT WB	62															
D.B.			68		70		72		74		76		78		80	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4050	46.7	2195	47.3	2355	48.0	2500	48.6	2655	49.2	2800	49.8	2940	50.5	3095	51.1
35	3525	48.9	1910	50.1	2055	50.8	2220	51.4	2362	52.0	2500	52.6	2645	53.2	2795	53.9
40	2900	51.5	1635	52.7	1786	53.3	1925	54.0	2085	54.5	2225	55.2	2375	55.8	2520	56.4
45	2300	53.8	1365	55.2	1510	55.9	1660	56.5	1810	57.1	1950	57.7	2100	58.3	2250	59.0
50	1650	56.3	1085	57.9	1230	58.5	1380	59.1	1530	59.7						

ENT WB	64															
D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4360	48.0	2460	49.0	2610	49.6	2750	50.3	2900	50.9	3045	51.6	3200	52.1	3350	52.7
35	3850	50.1	2160	51.8	2320	52.4	2460	53.0	2610	53.6	2750	54.3	2900	54.9	3050	55.5
40	3270	52.5	1875	54.5	2035	55.0	2165	55.8	2330	56.2	2460	57.0	2625	57.5	2770	58.1
45	2600	55.1	1620	56.9	1765	57.5	1910	58.1	2060	58.7	2200	59.4	2355	60.0	2500	60.6
50	2000	57.3	1327	59.6	1480	60.2	1620	60.9	1775	61.4	1915	62.1				

ENT WB	65															
D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4570	48.4	2430	49.3	2580	49.9	2725	50.5	2880	51.1	3020	51.8	3165	52.4	3320	53.0
35	4050	50.7	2140	52.0	2290	52.6	2435	53.2	2585	53.8	2730	54.5	2880	55.1	3030	55.7
40	3425	53.1	1860	54.6	2010	55.2	2155	55.8	2305	56.5	2450	57.1	2600	57.7	2745	58.3
45	2800	55.5	1580	57.2	1730	57.8	1875	58.5	2020	59.1	2165	59.7	2320	60.3	2465	60.9
50	2150	57.9	1310	59.8	1455	60.4	1605	61.0	1750	61.6	1900	62.2	2050	62.9		

ENT WB	66															
D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4725	49.2	2555	50.2	2700	50.8	2840	51.5	3000	52.0	3140	52.7	3290	53.3	3435	53.9
35	4200	51.4	2260	52.8	2410	53.5	2560	54.1	2710	54.7	2850	55.3	3000	55.9	3150	56.5
40	3625	53.8	1980	55.5	2125	56.2	2270	56.8	2420	57.4	2570	58.0	2720	58.6	2860	59.3
45	2950	56.2	1705	58.1	1850	58.7	1995	59.3	2140	60.0	2297	60.6	2445	61.2	2597	61.8
50	2350	58.4	1425	60.7	1567	61.4	1712	62.0	1860	62.6	2010	63.2	2160	63.8	2305	64.5

ENT WB	67															
D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4950	49.7	2525	50.4	2675	51.0	2825	51.6	2965	52.3	3115	52.9	3265	53.5	3425	54.1
35	4400	51.9	2235	53.1	2380	53.8	2520	54.4	2665	55.0	2820	55.6	2970	56.2	3120	56.8
40	3775	54.3	1955	55.7	2100	56.3	2250	57.0	2400	57.6	2545	58.2	2695	58.8	2840	59.5
45	3125	56.8	1685	58.2	1830	58.9	1980	59.5	2120	60.1	2275	60.7	2420	61.3	2560	61.9
50	2500	59.0	1405	60.9	1550	61.5	1700	62.1	1845	62.7	1995	63.4	2140	64.0	2290	64.6

ENT WB	68															
D.B.			76		78		80		82		84		86		88	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5100	50.5	2640	51.4	2780	52.0	2930	52.6	3080	53.2	3230	53.8	3375	54.5	3530	55.0
35	4600	52.6	3360	53.9	2500	54.5	2655	55.2	2800	55.8	2960	56.4	3100	57.0	3245	57.6
40	3950	55.0	2075	56.6	2220	57.3	2370	57.9	2530	58.5	2680	59.0	2815	59.7	2965	60.3
45	3310	57.3	1800	59.1	1950	59.7	2100	60.4	2245	61.0	2400	61.6	2545	62.2	2690	62.8
50	2675	59.6	1525	61.8	1670	62.4	1820	63.0	1970	63.6	2120	64.2	2265	64.9	2410	65.5

ENT WB	69															
D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5300	51.1	2770	52.1	2910	52.8	3060	53.4	3210	54.0	3370	54.6	3510	55.2	3650	55.9
35	4775	53.2	2470	54.9	2610	55.6	2760	56.2	2910	56.8	3060	57.4	3200	58.0	3350	58.7
40	4125	55.6	2195	57.5	2340	58.1	2490	58.7	2640	59.3	2790	60.0	2935	60.6	3080	61.2
45	3475	58.0	1930	59.9	2080	60.6	2225	61.2	2375	61.8	2525	62.4	2665	63.0	2815	63.7
50	2850	60.2	1645	62.6	1795	63.2	1940	63.9	2090	64.5	2235	65.1	2385	65.7	2530	66.3

TH—Total heat in B. T. U. per hour per Hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

3 ROWS — DIRECT EXPANSION COOLING—TEMPERATURE CHART — 3 ROWS

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB	70															
D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5520	51.6	2720	52.6	2870	53.2	3020	53.8	3155	54.5	3320	55.0	3440	55.9	3605	56.3
35	4950	53.9	2445	55.1	2590	55.8	2730	56.4	2900	57.0	3045	57.6	3180	58.2	3325	58.9
40	4350	56.1	2155	57.9	2305	58.5	2460	59.0	2605	59.7	2770	60.3	2900	60.9	3045	61.6
45	3675	58.6	1890	60.2	2045	60.9	2200	61.5	2345	62.1	2495	62.7	2640	63.3	2790	64.0
50	3050	60.7	1610	63.0	1760	63.6	1910	64.2	2060	64.8	2205	65.4	2355	66.0	2500	66.7

ENT WB	71															
D.B.			80		82		84		86		88		90		92	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5700	52.3	2855	53.3	3005	53.9	3155	54.5	3320	55.1	3445	55.8	3595	56.4	3745	57.0
35	5100	54.7	2575	56.0	2720	56.6	2870	57.2	3030	57.8	3160	58.4	3301	59.1	3460	59.7
40	4500	56.9	2290	58.6	2440	59.2	2585	59.8	2735	60.5	2880	61.1	3030	61.7	3175	62.3
45	3850	59.2	2015	61.2	2160	61.8	2310	62.4	2460	63.0	2600	63.6	2750	64.3	2900	64.9
50	3225	61.3	1740	63.7	1885	64.4	2035	65.0	2180	65.6	2330	66.2	2480	66.8	2625	67.5

ENT WB	72															
D.B.			82		84		86		88		90		92		94	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5920	53.0	2960	54.3	3115	54.9	3260	55.6	3410	56.2	3550	56.8	3700	57.4	3850	58.0
35	5325	55.2	2685	56.9	2840	57.5	2985	58.1	3130	58.7	3280	59.4	3420	60.0	3580	60.6
40	4700	57.5	2405	59.5	2555	60.1	2700	60.8	2850	61.4	2995	62.0	3145	62.6	3300	63.2
45	4050	59.8	2135	62.0	2280	62.6	2435	63.2	2580	63.9	2725	64.5	2860	65.1	3020	65.7
50	3400	62.0	1860	64.6	2010	65.2	2155	65.9	2305	66.5	2450	67.1	2600	67.7	2750	68.3

ENT WB	73															
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6120	53.6	3090	55.1	3250	55.7	3390	56.3	3530	57.0	3680	57.6	3830	58.2	3980	58.8
35	5550	55.3	2810	57.8	2955	58.4	3100	59.0	3240	59.7	3400	60.2	2540	60.9	3685	61.5
40	4875	58.3	2530	60.3	2680	60.9	2825	51.6	2975	62.2	3120	62.8	3270	63.4	3420	64.1
45	4275	60.3	2245	63.0	2400	63.6	2540	64.2	2685	64.9	2840	65.5	2985	66.1	3130	66.7
50	3600	62.6	1980	65.5	2130	66.1	2275	66.7	2425	67.3	2570	68.0	2720	68.6	2865	69.2

ENT WB	74															
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6320	54.4	3050	55.5	3195	56.2	3345	56.8	3490	57.4	3640	58.0	3790	58.6	3940	59.2
35	5700	56.8	2780	58.0	2935	58.6	3080	59.2	3220	59.9	3370	60.5	3520	61.1	3660	61.7
40	5100	58.8	2495	60.7	2645	61.3	2790	61.9	2940	62.6	3085	63.2	3235	63.8	3385	64.4
45	4450	61.1	2205	63.2	2375	63.8	2520	64.4	2660	65.1	2815	65.7	2960	66.3	3100	66.9
50	3775	63.3	1950	65.8	2095	66.4	2245	67.0	2390	67.7	2540	68.3	2690	68.9	2840	69.5

ENT WB	75															
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6550	55.1	3030	55.7	3190	56.3	3320	57.0	3465	57.6	3615	58.2	3765	58.8	3905	59.5
35	5945	57.3	2750	58.3	2900	58.9	3050	59.5	3190	60.2	3340	60.8	3490	61.4	3630	62.0
40	5300	59.6	2470	60.9	2615	61.6	2760	62.2	2910	62.8	3060	63.4	3205	64.0	3355	64.7
45	4650	61.8	2200	63.4	2355	64.0	2500	64.6	2640	65.3	2790	65.9	2940	66.5	3085	67.1
50	4000	63.8	1920	66.0	2070	66.7	2220	67.3	2365	67.9	2515	68.5	2660	68.1	2810	69.8

ENT WB	76															
D.B.			86		88		90		92		94		96		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6750	55.8	3140	56.7	3300	57.2	3435	57.9	3580	58.5	3735	59.1	3880	59.7	4025	60.4
35	6150	58.1	2860	59.2	3000	59.9	3155	60.5	3300	61.1	3455	61.7	3595	62.4	3740	63.0
40	5500	60.3	2585	61.9	2730	62.5	2880	63.1	3030	63.7	3180	64.3	3325	65.0	3470	65.6
45	4875	62.4	2310	64.4	2455	65.0	2600	65.7	2750	66.3	2900	66.9	3040	67.5	3185	68.2
50	4200	64.5	2040	67.0	2185	67.6	2332	68.2	2480	68.8	2630	69.4	2780	70.1	2925	70.7

ENT WB	78						80					
D.B.			90		94		98			90		94		98	
Rer. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7220	57.2	3365	58.6	3665	59.8	3960	61.0	7700	58.7	3295	59.2	3595	60.4	3880	61.7
35	6600	59.4	3095	61.1	3400	62.3	3680	63.6	7050	60.9	3020	61.8	3320	63.0	3600	64.3
40	6950	61.6	2815	63.7	3110	64.9	3405	66.2	6400	63.0	2750	64.3	3045	65.5	3340	66.8
45	5300	63.7	2540	66.3	2840	67.5	3125	68.8	5775	65.0	2470	66.9	2770	68.1	3055	69.4
50	4650	65.7	2267	68.8	2567	70.0	2860	71.3	5075	67.1	2200	69.4	2500	70.6	2795	71.9

TH—Total heat in B. T. U. per hour per Hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

DIRECT EXPANSION COOLING—TEMPERATURE CHART

4 ROWS — **4 ROWS**

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB 58

D.B.			68		72		76	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4000	41.4	2675	43.0	3005	43.9	3400	44.8
35	3365	44.4	2330	46.2	2665	47.1	3000	48.0
40	2700	47.4	2000	49.3	2335	50.2	2670	51.1
45	2035	50.2	1670	52.4	2000	53.3		
50	1300	53.1						

ENT WB 60

D.B.			68		72		76	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4325	42.6	2630	43.4	2965	44.3	3370	45.2
35	3735	45.4	2290	46.6	2625	47.5	2960	48.4
40	3030	48.4	1960	49.7	2290	50.6	2625	51.5
45	2345	51.3	1625	52.8	1960	53.7	2295	54.6
50	1600	54.2	1300	55.8				

ENT WB 62

D.B.			68		70		72		74		76		78		80	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4725	43.5	2590	43.9	2750	44.4	2910	44.8	3070	45.3	3320	45.7	3410	46.1	3570	46.6
35	4100	46.4	2240	47.1	2410	47.5	2575	47.9	2740	48.4	2910	48.8	3075	49.3	3245	49.7
40	3430	49.3	1910	50.2	2075	50.6	2240	51.0	2410	51.5	2580	51.9	2745	52.4	2910	52.8
45	2735	52.1	1680	53.2	1750	53.6	1915	54.1	2085	54.5	2250	55.0	2415	55.4	2585	55.8
50	1965	55.1	1255	56.3	1425	56.7	1590	57.1	1755	57.6	1925	58.0				

ENT WB 64

D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5125	44.6	2870	45.2	3015	45.7	3275	46.1	3370	46.5	3530	47.0	3700	47.4	3860	47.9
35	4535	47.2	2520	48.4	2690	48.9	2855	49.3	3025	49.8	3190	50.2	3355	50.6	3630	51.1
40	3810	50.3	2200	51.4	2365	51.9	2535	52.3	2705	52.8	2870	53.2	3035	53.6	3200	54.1
45	3135	53.0	1865	53.6	2030	55.0	2200	55.5	2365	55.9	2530	56.3	2700	56.8	2865	57.2
50	2365	55.9	1540	57.6	1710	58.0	1875	58.5	2040	58.9	2210	59.3				

ENT WB 65

D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5325	45.1	2845	45.4	3005	45.9	3250	46.3	3350	46.7	3510	47.2	3680	47.6	3840	48.1
35	4720	47.8	2495	48.7	2665	49.1	2830	49.6	3000	50.0	3165	50.4	3330	50.9	3605	51.3
40	4000	50.8	2165	51.7	2335	52.2	2500	52.6	2665	53.1	2840	53.5	3005	53.9	3170	54.4
45	3335	53.5	1835	53.8	2005	55.3	2175	55.7	2340	56.2	2505	56.6	2675	57.0	2840	57.5
50	2530	56.5	1520	57.8	1690	59.2	1855	58.7	2020	59.1	2190	59.5	2355	60.0	2520	60.4

ENT WB 66

D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5525	45.7	2980	46.2	3220	46.6	3320	47.0	3480	47.5	3650	47.9	3810	48.4	3980	48.8
35	4900	48.5	2640	49.3	2810	49.8	2975	50.2	3140	50.6	3310	51.1	3580	51.5	3645	52.0
40	4200	51.4	2305	52.4	2475	52.9	2640	53.3	2810	53.7	2975	54.2	3140	54.6	3310	55.1
45	3500	54.1	1980	55.5	2150	55.9	2315	56.4	2480	56.8	2650	57.2	2815	57.7	2985	58.1
50	2730	57.1	1660	58.5	1830	58.9	1995	59.4	2160	59.8	2330	60.2	2495	60.7	2660	61.1

ENT WB 67

D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5760	46.2	2960	46.4	3200	46.8	3295	47.2	3455	47.7	3625	48.1	3790	48.6	3960	49.0
35	5100	49.0	2615	49.5	2785	50.0	2950	50.4	3120	50.8	3290	51.3	3560	51.7	3620	52.2
40	4430	51.8	2280	52.7	2450	53.1	2620	53.6	2780	54.0	2950	54.4	3110	54.9	3285	55.3
45	3700	54.6	1955	55.7	2120	56.2	2290	56.6	2455	57.0	2625	57.5	2790	57.9	2960	58.4
50	2930	57.5	1640	58.7	1805	59.1	1975	59.6	2140	60.0	2310	60.4	2475	60.9	2640	61.3

ENT WB 68

D.B.			76		78		80		82		84		86		88	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5950	46.8	3165	47.1	3260	47.5	3420	48.0	3590	48.4	3755	48.9	3925	49.3	4100	49.7
35	5335	49.5	2755	50.3	2920	50.7	3090	51.1	3255	51.6	3530	52.0	3590	52.5	3755	52.9
40	4630	52.4	2430	53.3	2600	53.8	2760	54.2	2925	54.6	3095	55.1	3260	55.5	3430	56.0
45	3935	55.0	2095	56.4	2265	56.9	2430	57.3	2595	57.7	2765	58.2	2930	58.6	3100	59.1
50	3130	58.0	1780	59.4	1945	59.8	2115	60.2	2280	60.7	2450	61.1	2615	61.6	2780	62.0

ENT WB 69

D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6150	47.5	3240	47.7	3400	48.2	3570	48.6	3735	49.1	3900	49.5	4080	49.9	4240	50.4
35	5535	50.1	2900	50.9	3065	51.3	3235	51.8	3505	52.2	3565	52.7	3730	53.1	3900	53.5
40	4860	52.8	2560	54.1	2730	54.5	2900	54.9	3060	55.4	3230	55.8	3400	56.3	3560	56.7
45	4135	55.6	2235	57.1	2405	57.5	2570	58.0	2735	58.4	2905	58.9	3070	59.3	3240	59.7
50	3330	58.5	1920	60.1	2085	60.5	2255	60.9	2420	61.4	2590	61.8	2755	62.3	2920	62.7

TH—Total heat in B. T. U. per hour per Hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

4 ROWS — DIRECT EXPANSION COOLING—TEMPERATURE CHART — 4 ROWS

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB — 70

D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6400	48.0	3210	48.0	3370	48.5	3540	48.9	3700	49.4	3870	49.8	4050	50.2	4200	50.7
35	5765	50.6	2875	51.2	3040	51.6	3205	52.0	3480	52.5	3540	52.9	3705	53.4	3875	53.8
40	5100	53.3	2535	54.4	2700	54.8	2860	55.2	3030	55.7	3200	56.1	3365	56.6	3530	57.0
45	4365	56.1	2210	57.4	2375	57.8	2545	58.2	2710	58.7	2875	59.1	3045	59.6	3210	60.0
50	3565	58.9	1895	60.3	2060	60.7	2230	61.2	2395	61.6	2560	62.1	2730	62.5	2895	62.9

ENT WB — 71

D.B.			80		82		84		86		88		90		92	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6625	48.6	3340	48.7	3520	49.2	3670	49.6	3840	50.1	4025	50.5	4160	50.9	4350	51.4
35	6000	51.2	3010	51.9	3175	52.3	3450	52.8	3510	53.2	3675	53.7	3845	54.1	4010	54.5
40	5300	53.9	2680	55.0	2840	55.4	3010	55.9	3180	56.3	3345	56.8	3510	57.2	3680	57.6
45	4565	56.7	2350	58.0	2515	58.5	2685	58.9	2850	59.4	3020	59.8	3185	60.2	3350	60.7
50	3765	59.5	2035	61.0	2200	61.4	2370	61.9	2530	62.3	2700	62.8	2870	63.2	3035	63.6

ENT WB — 72

D.B.			82		84		86		88		90		92		94	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6900	49.0	3500	49.4	3645	49.8	3820	50.3	4010	50.7	4140	51.2	4320	51.6	4500	52.0
35	6235	51.7	3140	52.6	3415	53.1	3475	53.5	3645	53.9	3810	54.4	3980	54.8	4145	55.3
40	5530	54.5	2815	55.7	2980	56.2	3140	56.6	3310	57.1	3480	57.5	3645	57.9	3810	58.4
45	4800	57.2	2490	58.7	2655	59.2	2825	59.6	2990	60.1	3155	60.5	3325	60.9	3490	61.4
50	4000	60.0	2175	61.7	2340	62.1	2505	62.6	2675	63.0	2840	63.4	3010	63.9	3175	64.3

ENT WB — 73

D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7160	49.5	3605	50.3	3780	50.7	3960	51.1	4100	51.6	4280	52.0	4450	52.5	4610	52.9
35	6465	52.3	3390	53.3	3450	53.8	3615	54.2	3785	54.6	3950	55.1	4115	55.5	4285	56.0
40	5760	55.0	2950	56.4	3120	56.9	3285	57.3	3450	57.7	3620	58.2	3780	58.6	3950	59.1
45	5035	57.8	2630	59.4	2800	59.9	2965	60.3	3130	60.7	3300	61.2	3465	61.6	3635	62.1
50	4230	60.5	2315	62.4	2480	62.8	2650	63.3	2815	63.7	2980	64.1	3150	64.6	3315	65.0

ENT WB — 74

D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7400	50.1	3580	50.5	3750	50.9	3930	51.4	4070	51.8	4250	52.3	4420	52.7	4575	53.1
35	6700	52.9	3360	53.6	3415	54.1	3585	54.5	3750	54.9	3920	55.4	4085	55.8	4255	56.3
40	6000	55.6	2920	56.7	3095	57.1	3260	57.6	3420	58.0	3590	58.4	3755	58.9	3920	59.3
45	5235	58.4	2600	59.7	2770	60.1	2935	60.6	3105	61.0	3270	61.4	3440	61.9	3605	62.3
50	4465	61.0	2280	62.7	2450	63.1	2620	63.6	2785	64.0	2950	64.4	3120	64.9	3285	65.3

ENT WB — 75

D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7650	50.7	3540	50.9	3710	51.3	3890	51.7	4030	52.2	4210	52.6	4390	53.1	4540	53.5
35	6965	53.4	3325	53.9	3385	54.4	3555	54.8	3720	55.2	3885	55.7	4055	56.1	4220	56.6
40	6260	56.1	2885	57.0	3055	57.5	3220	57.9	3390	58.3	3555	58.8	3720	59.2	3890	59.7
45	5520	58.8	2570	60.0	2740	60.4	2905	60.9	3075	61.3	3240	61.7	3410	62.2	3575	62.6
50	4700	61.6	2250	63.0	2420	63.4	2585	63.9	2750	64.3	2920	64.7	3080	65.2	3255	65.6

ENT WB — 76

D.B.			86		88		90		92		94		96		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7900	51.4	3690	51.5	3870	51.9	4010	52.4	4190	52.8	4360	53.3	4520	53.7	4700	54.1
35	7200	54.1	3355	54.6	3525	55.1	3695	55.5	3860	55.9	4025	56.4	4190	56.8	4360	57.3
40	6500	56.8	3025	57.8	3185	58.2	3355	58.6	3520	59.1	3690	59.5	3860	60.0	4020	60.4
45	5735	59.5	2705	60.7	2875	61.2	3040	61.6	3205	62.0	3375	62.5	3540	62.9	3710	63.4
50	4930	62.2	2390	63.7	2555	64.1	2725	64.5	2890	65.0	3055	65.4	3225	65.9	3390	66.3

ENT WB — 78

D.B.			90		94		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	8425	52.6	3940	53.1	4290	54.0	4625	54.8
35	7735	55.3	3625	56.1	3955	57.0	4290	57.9
40	7030	57.9	3300	59.2	3630	60.1	3965	61.0
45	6250	60.6	2975	62.2	3310	63.1	3645	64.0
50	5430	63.3	2660	65.1	2995	66.0	3330	66.9

ENT WB — 80

D.B.			90		94		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	9000	53.9	3870	53.7	4210	54.6	4560	55.4
35	8335	56.4	3550	56.8	3880	57.7	4115	58.6
40	7600	59.0	3215	59.9	3550	60.8	3885	61.7
45	6800	61.7	2905	62.8	3240	63.7	3575	64.6
50	6000	64.3	2590	65.8	2925	66.7	3260	67.6

TH—Total heat in B. T. U. per hour per Hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

DIRECT EXPANSION COOLING—TEMPERATURE CHART

5 ROWS — **Buffalo Type "PC" Central Conditioning Cabinets** — **5 ROWS**

ENT WB	58								60							
D.B.			68		72		76				68		72		76	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	4410	39.4	2980	40.2	3340	40.8	3705	41.4	4830	40.2	2935	40.6	3295	41.2	3660	41.8
35	3750	42.6	2590	43.8	2960	44.3	3330	44.9	4160	43.4	2545	44.2	2910	44.8	3275	45.4
40	3040	45.9	2215	47.3	2580	47.9	2940	48.5	3420	46.8	2175	47.7	2540	48.3	2900	48.9
45	2250	49.3	1850	50.7	2215	51.3			2665	50.0	1790	51.2	2160	51.8	2525	52.4
50	1415	52.6							1835	53.3	1440	54.5	1800	55.1		

ENT WB	62															
D.B.			68		70		72		74		76		78		80	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	B.D.
30	5280	40.9	2880	41.1	3060	41.4	3240	41.7	3425	42.0	3610	42.3	3785	42.6	3970	42.9
35	4580	44.2	2510	44.6	2680	44.9	2865	45.2	3050	45.5	3230	45.8	3415	46.1	3595	46.4
40	3835	47.6	2130	48.1	2310	48.4	2495	48.7	2675	49.0	2860	49.3	3040	49.6	3220	49.9
45	3040	50.9	1750	51.5	2160	51.8	2130	52.1	2310	52.4	2495	52.7	2675	53.0	2860	53.3
50	2250	54.0	1400	54.9	1580	55.2	1760	55.5	1940	55.8	2125	56.1				

ENT WB	64															
D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5745	41.7	3195	42.1	3375	42.4	3560	42.7	3740	43.0	3920	43.3	4100	43.6	4280	43.9
35	5000	45.2	2820	45.6	3000	45.9	3180	46.2	3365	46.5	3545	46.8	3730	47.1	3905	47.4
40	4290	48.3	2440	49.2	2625	49.5	2805	49.8	2990	50.1	3170	50.4	3350	50.7	3530	51.0
45	3460	51.7	2080	52.5	2260	52.8	2445	53.1	2625	53.4	2820	53.7	2990	54.0	3170	54.3
50	2665	54.8	1705	56.0	1890	56.3	2070	56.6	2250	56.9	2435	57.2	2615	57.5		

ENT WB	65															
D.B.			72		74		76		78		80		82		84	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	5950	42.2	3170	42.4	3350	42.7	3530	43.0	3710	43.3	3890	43.6	4070	43.9	4255	44.2
35	5200	45.7	2800	45.8	2980	46.1	3160	46.4	3340	46.7	3520	47.0	3710	47.3	3880	47.6
40	4500	48.7	2420	49.4	2600	49.7	2780	50.0	2965	50.3	3130	50.6	3330	50.9	3510	51.2
45	3665	52.2	2055	52.8	2240	53.1	2420	53.4	2600	53.7	2790	54.0	2970	54.3	3150	54.6
50	2875	55.2	1685	56.2	1865	56.5	2050	56.8	2230	57.1	2415	57.4	2595	57.7	2775	58.0

ENT WB	66															
D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6160	42.8	3330	42.9	3510	43.2	3690	43.5	3870	43.8	4050	44.1	4230	44.4	4420	44.7
35	5450	46.1	2970	46.4	3130	46.7	3310	47.0	3495	47.3	3675	47.6	3860	47.9	4040	48.2
40	4750	49.1	2575	49.9	2755	50.2	2940	50.5	3120	30.8	3300	51.1	3485	51.4	3665	51.7
45	3910	52.5	2215	53.3	2400	53.6	2570	53.9	2770	54.2	2950	54.5	3130	54.8	3305	55.1
50	3085	55.7	1845	56.7	2030	57.0	2210	57.3	2390	57.6	2575	57.9	2755	58.2	2940	58.5

ENT WB	67															
D.B.			74		76		78		80		82		84		86	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6425	43.1	3300	43.1	3485	43.4	3660	43.7	3845	44.0	4030	44.3	4205	44.6	4390	44.9
35	5700	46.4	2930	46.6	3115	46.9	3300	47.2	3480	47.5	3660	47.8	3840	48.1	4020	48.4
40	4960	49.6	2550	50.1	2730	50.4	2915	50.7	3100	51.0	3280	51.3	3460	51.6	3645	51.9
45	4160	52.8	2180	53.6	2365	53.9	2535	54.2	2740	54.5	2920	54.8	3100	55.1	3275	55.4
50	3290	56.2	1825	56.9	2005	57.2	2185	57.5	2370	57.8	2550	58.1	2735	58.4	2915	58.7

ENT WB	68															
D.B.			76		78		80		82		84		86		88	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6655	43.6	3460	43.7	3635	44.0	3820	44.3	4000	44.6	4180	44.9	4370	45.2	4545	45.5
35	5950	46.8	3080	47.2	3260	47.5	3445	47.8	3625	48.1	3810	48.4	3990	48.7	4170	49.0
40	5210	50.0	2710	50.7	2890	51.0	3070	51.3	3255	51.6	3435	51.9	3620	52.2	3800	52.5
45	4375	53.4	2345	54.0	2520	54.3	2720	54.6	2905	54.9	3085	55.2	3260	55.5	3435	55.9
50	3540	56.5	1980	57.5	2160	57.8	2345	58.1	2525	58.4	2705	58.7	2890	59.0	3070	59.3

ENT WB	69															
D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	6905	44.1	3610	44.2	3790	44.5	3970	44.8	4155	45.1	4340	45.4	4520	45.7	4700	46.0
35	6200	47.3	3240	47.7	3420	48.0	3600	48.3	3780	48.6	3965	48.9	4140	49.2	4325	49.5
40	5460	50.4	2865	51.2	3045	51.5	3230	51.8	3410	52.1	3590	52.4	3770	52.7	3955	53.0
45	4620	53.7	2490	54.7	2695	55.0	2870	55.3	3050	55.6	3220	55.9	3400	56.2	3585	56.5
50	3765	57.0	2135	58.0	2315	58.3	2500	58.6	2680	58.9	2865	59.2	3045	59.5	3225	59.8

TH—Total heat in B. T. U. per hour per Hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

5 ROWS — DIRECT EXPANSION COOLING—TEMPERATURE CHART — 5 ROWS

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB			70													
D.B.			78		80		82		84		86		88		90	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7155	44.6	3580	44.5	3765	44.8	3945	45.1	4130	45.4	4315	45.7	4490	46.0	4675	46.3
35	6410	47.9	3220	47.9	3395	48.2	3580	48.5	3760	48.8	3940	49.1	4125	49.4	4300	49.7
40	5710	50.9	2840	51.4	3025	51.7	3205	52.0	3385	52.3	3570	52.6	3750	52.9	3930	53.2
45	4870	54.2	2470	54.9	2675	55.2	2845	55.5	3030	55.8	3200	56.1	3380	56.4	3560	56.7
50	4000	57.5	2110	58.3	2290	58.6	2470	58.9	2655	59.2	2835	59.5	3020	59.8	3200	60.1

ENT WB			71													
D.B.			80		82		84		86		88		90		92	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7360	45.3	3740	45.0	3920	45.3	4100	45.6	4285	45.9	4470	46.2	4650	46.5	4830	46.8
35	6660	48.4	3370	48.5	3550	48.8	3725	49.1	3915	49.4	4100	49.7	4275	50.0	4460	50.3
40	5960	51.3	3000	52.0	3180	52.3	3360	52.6	3540	52.9	3720	53.2	3905	53.5	4090	53.8
45	5080	54.8	2650	55.4	2825	55.7	3010	56.0	3180	56.3	3360	56.6	3540	56.9	3720	57.2
50	4250	57.9	2260	58.8	2445	59.1	2625	59.4	2810	59.7	2990	60.0	3175	60.3	3355	60.6

ENT WB			72													
D.B.			82		84		86		88		90		92		94	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7700	45.5	3885	45.6	4070	45.9	4250	46.2	4430	46.5	4620	46.8	4800	47.1	4980	47.4
35	6950	48.7	3520	49.0	3705	49.3	3885	49.6	4070	49.9	4250	50.2	4335	50.5	4615	50.8
40	6210	51.8	3150	52.6	3330	52.9	3510	53.2	3690	53.5	3875	53.8	4055	54.1	4240	54.4
45	5370	55.1	2790	56.0	2975	56.3	3150	56.6	3325	56.9	3510	57.2	3690	57.5	3870	57.8
50	4500	58.3	2420	59.4	2600	59.7	2780	60.0	2965	60.3	3150	60.6	3325	60.9	3510	61.2

ENT WB			73													
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	7950	46.1	4040	46.2	4120	46.5	4400	46.8	4590	47.1	4770	47.4	4955	47.7	5135	48.0
35	7250	49.1	3670	49.7	3855	50.0	4040	50.3	4215	50.6	4400	50.9	4580	51.2	4755	51.5
40	6460	52.3	3300	53.1	3480	53.4	3665	53.7	3845	54.0	4020	54.3	4210	54.6	4390	54.9
45	5620	55.6	2940	56.6	3115	56.9	3295	57.2	3480	57.5	3660	57.8	3840	58.1	4025	58.4
50	4750	58.8	2575	59.9	2755	60.2	2940	60.5	3120	60.8	3300	61.1	3480	61.4	3665	61.7

ENT WB			74													
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	8245	46.5	4010	46.5	4190	46.8	4375	47.1	4560	47.4	4745	47.7	4925	48.0	5100	48.3
35	7500	49.7	3640	50.0	3820	50.3	4000	50.6	4185	50.9	4365	51.2	4550	51.5	4720	51.8
40	6750	52.8	3265	53.5	3450	53.8	3630	54.1	3810	54.4	3990	54.7	4175	55.0	4355	55.3
45	5910	55.9	2915	56.8	3085	57.1	3270	57.4	3450	57.7	3630	58.0	3815	58.3	3995	58.6
50	5045	59.1	2550	60.2	2730	60.5	2910	60.8	3090	61.1	3275	61.4	3455	61.7	3640	62.0

ENT WB			75													
D.B.			84		86		88		90		92		94		96	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	8500	47.2	3980	46.7	4165	47.0	4350	47.3	4535	47.6	4710	47.9	4895	48.2	5075	48.5
35	7790	50.2	3610	50.2	3790	50.5	3975	50.8	4160	51.1	4340	51.4	4510	51.7	4690	52.0
40	7000	53.3	3240	53.7	3425	54.0	3605	54.3	3790	54.6	3970	54.9	4150	55.2	4330	55.2
45	6160	56.5	2890	57.1	3060	57.4	3240	57.7	3420	58.0	3605	58.3	3790	58.6	3970	58.9
50	5295	59.7	2520	60.4	2700	60.7	2885	61.0	3065	61.3	3250	61.6	3430	61.9	3610	62.2

ENT WB			76													
D.B.			86		88		90		92		94		96		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	8785	47.6	4130	47.4	4315	47.7	4500	48.0	4675	48.3	4855	48.6	5045	48.9	5225	49.2
35	8080	50.6	3760	50.9	3940	51.2	4120	51.5	4300	51.8	4475	52.1	4665	52.4	4840	52.7
40	7270	53.9	3390	54.3	3575	54.6	3755	54.9	3940	55.2	4120	55.5	4300	55.8	4480	56.1
45	6450	56.9	3030	57.7	3210	58.0	3390	58.3	3570	58.6	3755	58.9	3940	59.2	4120	59.5
50	5500	60.3	2675	61.0	2855	61.3	3040	61.6	3220	61.9	3400	62.2	3585	62.5	3765	62.8

ENT WB			78						80						
D.B.			90		94		98				90		94		98	
Ref. T.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	S.H.	D.B.	S.H.	D.B.
30	9360	48.8	4435	48.5	4800	49.1	5160	49.7	9995	49.9	4370	49.2	4725	49.8	5095	50.4
35	8660	51.7	4060	52.0	4420	52.6	4780	53.2	9300	52.8	3990	52.7	4360	53.3	4720	53.9
40	7875	54.8	3690	55.5	4060	56.1	4420	56.7	8450	56.0	3630	56.1	3990	56.7	4355	57.3
45	7040	57.9	3330	58.8	3695	59.4	4055	60.0	7620	58.9	3255	59.5	3625	60.1	3985	60.7
50	6090	61.2	2975	62.2	3340	62.8	3700	63.4	6710	62.1	2905	62.8	3270	63.4	3630	64.0

TH—Total heat in B. T. U. per hour per Hundred CFM for rated CFM capacity of unit.
SH—Sensible heat in B. T. U. per hour per hundred CFM for rated CFM capacity of unit.
WB—Leaving wet bulb temp. in degrees Fahr.
DB—Leaving dry bulb temp. in degrees Fahr.
Ref. T.—Saturated suction temperature at coil discharge.

WATER COOLING—TEMPERATURE CHART

4 ROWS — **4 ROWS**

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB / D.B. / Water T.	62 @ 70				62 @ 74				62 @ 78				62 @ 80			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	3375	49.5	1980	51.5	3430	49.3	2355	52.0	3500	49.0	2710	52.7	3560	48.7	2890	53.0
50	2000	55.0	1390	57.0	2080	54.7	1735	57.8	2120	54.5	2085	58.5	2245	54.0	2245	59.0
60	749	59.5	749	63.0	1050	58.5	1050	64.2	1350	57.5	1350	65.4	1500	56.8	1500	66.0
70					300	61.0	300	71.2	600	60.0	600	72.4	750	59.5	750	73.0

ENT WB / D.B. / Water T.	62 @ 82				62 @ 86				62 @ 90				62 @ 94			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	3580	48.6	3060	53.4	3650	48.3	3400	54.2	3745	48.0	3745	55.0	4050	46.6	4050	56.2
50	2395	53.5	2395	59.6	2695	52.3	2695	60.8	3000	51.0	3000	62.0	3295	50.0	3295	63.2
60	1650	56.3	1650	66.6	1950	55.0	1950	67.8	2250	54.0	2250	69.0	2550	52.9	2550	70.2
70	900	59.0	900	73.6	1200	57.9	1200	74.8	1500	56.8	1500	76.0	1800	55.8	1800	77.2

ENT WB / D.B. / Water T.	64 @ 70				64 @ 74				64 @ 78				64 @ 80			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	3590	51.2	1891	52.3	3700	50.7	2270	52.8	3790	50.3	2620	53.5	3840	50.1	2800	53.8
50	2220	56.4	1306	57.8	2340	56.0	1670	58.4	2500	55.4	2010	59.2	2520	55.3	2180	59.6
60	800	61.3	728	63.2	1050	60.5	1050	64.2	1350	59.5	1350	65.4	1500	59.0	1500	66.0
70					300	63.0	300	71.2	600	62.0	600	72.4	750	61.6	750	73.0

ENT WB / D.B. / Water T.	64 @ 82				64 @ 86				64 @ 90				64 @ 94			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	3900	49.9	2960	54.3	4000	49.5	3320	55.0	4060	49.2	3680	55.6	4120	49.0	4030	56.3
50	2550	55.2	2350	60.0	2695	54.7	2695	60.8	3000	53.5	3000	62.0	3295	52.5	3295	63.2
60	1650	58.4	1650	66.6	1950	57.5	1950	67.8	2250	56.4	2250	69.0	2550	55.3	2550	70.2
70	900	61.0	900	73.6	1200	60.0	1200	74.8	1500	59.0	1500	76.0	1800	58.0	1800	77.2

ENT WB / D.B. / Water T.	66 @ 74				66 @ 78				66 @ 80				66 @ 82			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4000	52.1	2180	53.6	4060	51.8	2540	54.3	4130	51.6	2720	54.6	4200	51.3	2890	55.0
50	2640	57.2	1580	59.2	2700	57.0	1935	59.9	2800	56.6	2110	60.3	2850	56.4	2290	60.6
60	1100	62.4	1028	64.4	1350	61.6	1350	65.4	1500	61.2	1500	66.0	1650	60.7	1650	66.6
70	300	65.0	300	71.2	600	64.1	600	72.4	750	63.8	750	73.0	900	63.2	900	73.6

ENT WB / D.B. / Water. T	66 @ 86				66 @ 90				66 @ 94				66 @ 98			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4270	51.0	3250	55.6	4400	50.5	3620	56.2	4440	50.3	3960	57.0	4520	50.0	4310	57.7
50	2910	56.2	2655	61.2	3100	55.5	3000	62.0	3295	54.8	3295	63.2	3600	53.6	3600	64.4
60	1950	59.8	1950	67.8	2250	58.8	2250	69.0	2550	57.5	2550	70.2	2850	56.4	2850	71.4
70	1200	62.3	1200	74.8	1500	61.3	1500	76.0	1800	60.2	1800	77.2	2100	59.2	2100	78.4

ENT WB / D.B. / Water T.	68 @ 78				68 @ 80				68 @ 82				68 @ 86			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4390	53.3	2440	55.2	4480	53.0	2630	55.4	4510	52.8	2800	55.8	4600	52.5	3180	56.3
50	3090	58.1	1850	60.7	3120	58.0	2030	61.0	3220	57.7	2200	61.4	3280	57.4	2570	62.0
60	1590	63.2	1282	66.0	1650	63.0	1465	66.3	1700	62.8	1649	66.6	1950	62.0	1950	67.8
70	600	66.3	600	72.4	750	65.9	750	73.0	900	65.3	900	73.6	1200	64.5	1200	74.8

ENT WB / D.B. / Water T.	68 @ 90				68 @ 94				68 @ 98				68 @ 102			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4720	52.0	3530	57.0	4820	51.6	3900	57.6	4850	51.4	4250	58.3	4950	51.1	4600	59.0
50	3380	57.1	2920	62.7	3450	56.9	3280	63.4	3600	56.2	3600	64.4	3900	55.0	3900	65.6
60	2250	61.0	2250	69.0	2550	60.0	2550	70.2	2850	59.0	2850	71.4	3145	57.9	3145	72.6
70	1500	63.4	1500	76.0	1800	62.4	1800	77.2	2100	61.3	2100	78.4	2400	60.5	2400	79.6

ENT WB / D.B. / Water T.	70 @ 78				70 @ 80				70 @ 82				70 @ 86			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4700	54.8	2340	56.1	4750	54.6	2530	56.4	4820	54.3	2720	56.6	4940	53.9	3080	57.2
50	3380	59.6	1765	61.5	3450	59.3	1950	61.8	3500	59.1	2130	62.1	3580	58.9	2480	62.8
60	1910	64.4	1220	66.6	1980	64.2	1390	67.0	2030	64.0	1560	67.4	2140	63.7	1915	68.1
70	600	68.3	600	72.4	750	67.9	750	73.0	900	67.5	900	73.6	1200	66.5	1200	74.8

TH—Total Heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
SH—Sensible heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
WB—Leaving wet bulb temperature in degrees Fahrenheit.
DB—Leaving dry bulb temperature in degrees Fahrenheit.
Water T—Water temperature entering coil in degrees Fahrenheit.

WATER COOLING—TEMPERATURE CHART

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB / D.B. / Water T.	70															
	90				94				98				102			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5040	53.5	3440	57.9	5170	53.0	3800	58.5	5210	52.8	4140	59.3	5300	52.5	4445	60.0
50	3690	58.5	2835	63.5	3780	58.2	3185	64.2	3880	57.8	3540	64.9	3940	57.6	3880	65.7
60	2250	63.3	2250	69.0	2550	62.4	2550	70.2	2850	61.4	2850	71.4	3150	60.4	3150	72.6
70	1500	65.7	1500	76.0	1800	64.8	1800	77.2	2100	63.8	2100	78.4	2400	62.8	2400	79.6

ENT WB / D.B. / Water T.	72															
	82				86				90				94			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5140	56.0	2610	57.6	5270	55.5	2975	58.2	5400	55.0	3340	58.8	5490	54.7	3700	59.4
50	3860	60.5	2030	63.0	3950	60.2	2385	63.7	4050	59.8	2750	64.3	4170	59.4	3105	65.0
60	2350	65.3	1468	68.3	2500	64.9	1830	68.9	2600	64.6	2180	69.6	2620	64.5	2535	70.3
70	900	69.5	900	73.6	1200	68.7	1200	74.8	1500	67.8	1500	76.0	1800	67.0	1800	77.2

ENT WB / D.B. / Water T.	72															
	98				102				106				110			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5600	54.2	4060	60.0	5630	54.1	4410	60.8	5750	53.6	4760	61.5	5880	53.1	5140	62.0
50	4260	59.1	3465	65.6	4350	58.8	3810	66.4	4420	58.6	4160	67.1	4530	58.2	4495	68.0
60	2850	63.8	2850	71.4	3150	62.8	3150	72.6	3450	61.9	3450	73.8	3750	60.9	3750	75.0
70	2100	66.1	2100	78.4	2400	65.2	2400	79.6	2700	64.2	2700	80.8	3000	63.3	3000	82.0

ENT WB / D.B. / Water T.	74															
	82				86				90				94			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5480	57.6	2500	58.6	5630	57.0	2890	59.0	5740	56.6	3240	59.7	5850	56.1	3620	60.2
50	4140	62.2	1915	64.1	4320	61.6	2290	64.6	4440	61.2	2650	65.2	4550	60.8	3020	65.8
60	2700	66.6	1370	69.2	2850	66.2	1745	69.7	2950	65.9	2095	70.4	3080	65.5	2450	71.1
70	1015	71.2	880	73.8	1200	70.8	1200	74.8	1500	70.0	1500	76.0	1800	69.2	1800	77.2

ENT WB / D.B. / Water T.	74															
	98				102				106				110			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5970	55.7	3970	60.9	6070	55.3	4310	61.7	6160	55.0	4680	62.3	6280	54.6	5040	63.0
50	4650	60.5	3360	66.6	4750	60.1	3710	67.3	4850	59.8	4060	68.0	4940	59.5	4410	68.7
60	3100	65.4	2800	71.8	3150	65.3	3150	72.6	3450	64.3	3450	73.8	3750	63.4	3750	75.0
70	2100	68.3	2100	78.4	2400	67.5	2400	79.6	2700	66.6	2700	80.8	3000	65.7	3000	82.0

ENT WB / D.B. / Water T.	76															
	86				90				94				98			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5960	58.7	2760	60.2	6100	58.2	3140	60.7	6180	57.9	3490	61.4	6310	57.4	3850	62.0
50	4620	63.2	2180	65.6	4740	62.8	2545	66.2	4870	62.4	2900	66.9	5000	62.0	3260	67.5
60	3140	67.6	1640	70.7	3240	67.3	1990	71.4	3350	67.0	2360	71.9	3500	66.6	2695	72.8
70	1390	72.4	1155	75.2	1550	72.0	1500	76.0	1800	71.3	1800	77.2	2100	70.5	2100	78.4

ENT WB / D.B. / Water T.	76															
	102				106				110				114			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6450	56.9	4220	62.5	6600	56.3	4600	63.0	6690	56.0	4950	63.8	6770	55.7	5300	64.5
50	5160	61.5	3620	68.2	5250	61.2	3970	68.9	5300	61.0	4340	69.5	5450	60.5	4700	70.1
60	3580	66.3	3060	73.4	3700	66.0	3400	74.2	3890	65.4	3730	75.1	4050	64.9	4050	76.2
70	2400	69.7	2400	79.6	2700	68.8	2700	80.8	3000	68.0	3000	82.0	3300	67.1	3300	83.2

ENT WB / D.B. / Water T.	78															
	86				90				94				98			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6170	60.8	2630	61.4	6380	60.1	3020	61.8	6560	59.5	3380	62.4	6700	59.0	3740	63.0
50	4830	65.2	2065	66.7	5050	64.5	2440	67.2	5240	63.9	2800	67.8	5350	63.5	3160	68.5
60	3380	69.4	1540	71.6	3570	68.9	1890	72.3	3700	68.5	2250	73.0	3880	68.0	2620	73.5
70	1750	73.7	1060	76.1	1900	73.3	1400	76.9	2030	73.0	1745	77.7	2140	72.7	2085	78.5

ENT WB / D.B. / Water T.	78															
	102				106				110				114			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6790	58.7	4100	63.7	6940	58.2	4460	64.4	7080	57.7	4810	65.0	7230	57.2	5145	65.5
50	5480	63.1	3520	69.1	5610	62.7	3880	69.7	5730	62.3	4240	70.4	5860	61.8	4600	71.0
60	3990	67.7	2960	74.3	4100	67.3	3320	75.0	4180	67.1	3660	75.8	4280	66.8	4010	76.5
70	2400	72.0	2400	79.6	2700	71.2	2700	80.8	3000	70.4	3000	82.0	3300	69.7	3300	83.2

TH—Total Heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
SH—Sensible heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
WB—Leaving wet bulb temperature in degrees Fahrenheit.
DB—Leaving dry bulb temperature in degrees Fahrenheit.
Water T—Water temperature entering coil in degrees Fahrenheit.

WATER COOLING—TEMPERATURE CHART

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB	62															
D.B.	70				74				78				80			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4025	46.7	2375	47.8	4095	46.4	2780	48.0	4200	45.9	3220	48.0	4260	45.7	3405	48.2
50	2385	53.5	1645	54.6	2500	53.0	2050	54.8	2550	52.8	2460	55.0	2655	52.4	2655	55.2
60	885	59.0	885	61.8	1240	57.7	1240	62.4	1595	56.5	1595	63.1	1770	55.8	1770	63.5
70					354	60.8	354	70.7	710	59.6	710	71.4	885	59.0	885	71.7

ENT WB	62															
D.B.	82				86				90				94			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4285	45.6	3605	48.3	4350	45.3	4000	48.6	4415	45.0	4415	48.7	4780	43.3	4780	49.4
50	2830	51.7	2830	55.6	3185	50.3	3185	56.2	3540	48.8	3540	56.9	3890	47.3	3890	57.6
60	1950	55.1	1950	63.8	2300	53.8	2300	64.5	2650	52.4	2650	65.2	3010	50.8	3010	65.9
70	1060	58.4	1060	72.1	1420	57.1	1420	72.7	1770	55.8	1770	73.5	2120	54.5	2120	74.2

ENT WB	64															
D.B.	70				74				78				80			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4355	47.9	2300	48.5	4480	47.4	2710	48.7	4575	47.0	3115	48.9	4625	46.8	3330	48.9
50	2700	54.6	1565	55.4	2835	54.1	1980	55.5	2975	53.6	2375	55.8	3000	53.5	2585	55.8
60	950	60.9	860	62.0	1240	59.9	1240	62.4	1590	58.7	1590	63.1	1770	57.9	1770	63.5
70					354	62.8	354	70.7	710	61.7	710	71.4	885	61.1	885	71.7

ENT WB	64															
D.B.	82				86				90				94			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4690	46.5	3535	49.0	4760	46.2	3925	49.3	4850	45.8	4340	49.5	4900	45.6	4745	49.6
50	3040	53.3	2770	56.1	3190	52.7	3190	56.2	3540	51.3	3540	56.9	3890	49.9	3890	57.6
60	1950	57.4	1950	63.8	2300	56.1	2300	64.5	2660	54.8	2660	65.1	3010	53.4	3010	65.8
70	1060	60.5	1060	72.1	1420	59.3	1420	72.7	1770	58.0	1770	73.5	2120	56.8	2120	74.2

ENT WB	66															
D.B.	74				78				80				82			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4830	48.7	2625	49.5	4930	48.2	3035	49.6	5000	47.9	3235	49.8	5055	47.7	3435	49.9
50	3200	55.1	1890	56.3	3290	54.8	2300	56.5	3380	54.5	2500	56.6	3420	54.3	2710	56.7
60	1350	61.6	1200	62.8	1595	60.8	1595	63.1	1770	60.3	1770	63.5	1950	59.6	1950	63.8
70	354	64.9	354	70.7	710	63.8	710	71.4	885	63.2	885	71.7	1060	62.6	1060	72.1

ENT WB	66															
D.B.	86				90				94				98			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5135	47.4	3855	50.0	5245	46.9	4270	50.1	5300	46.6	4665	50.4	5400	46.2	5075	50.6
50	3500	54.0	3100	57.0	3650	53.4	3500	57.3	3890	52.5	3890	57.7	4250	51.0	4250	58.3
60	2300	58.4	2300	64.5	2655	57.1	2655	65.2	3015	55.9	3015	65.8	3370	54.5	3370	66.5
70	1415	61.4	1415	72.8	1770	60.2	1770	73.5	2120	59.1	2120	74.2	2480	57.7	2480	74.8

ENT WB	68															
D.B.	78				80				82				86			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5310	49.6	2940	50.6	5395	49.2	3150	50.6	5450	49.0	3350	50.7	5570	48.5	3775	50.7
50	3740	55.7	2220	57.3	3780	55.6	2420	57.4	3870	55.3	2615	57.6	3960	55.0	3030	57.7
60	1910	62.1	1520	63.8	1980	61.9	1725	63.9	2040	61.7	1935	63.9	2300	60.8	2300	64.5
70	710	66.0	710	71.4	885	65.4	885	71.7	1060	64.9	1060	72.1	1420	63.7	1420	72.7

ENT WB	68															
D.B.	90				94				98				102			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5680	48.0	4190	50.9	5760	47.7	4610	51.0	5820	47.4	5000	51.4	5920	47.0	5390	51.7
50	4050	54.6	3445	57.8	4125	54.3	3855	58.0	4250	53.8	4250	58.3	4600	52.4	4600	59.0
60	2660	59.6	2660	65.2	3015	58.3	3015	65.8	3365	57.1	3365	66.6	3715	55.9	3715	67.3
70	1770	62.6	1770	73.5	2120	61.4	2120	74.2	2480	60.2	2480	74.8	2835	59.1	2835	75.5

ENT WB	70															
D.B.	78				80				82				86			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5700	50.9	2845	51.4	5770	50.6	3060	51.4	5850	50.3	3270	51.5	5960	49.9	3675	51.7
50	4090	57.0	2115	58.2	4180	56.7	2330	58.2	4220	56.6	2530	58.4	4330	56.2	2945	58.5
60	2320	63.1	1450	64.5	2400	62.8	1645	64.6	2455	62.5	1845	64.8	2540	62.4	2250	65.0
70	710	68.0	710	71.4	885	67.5	885	71.7	1060	67.0	1060	72.1	1420	65.9	1420	72.7

TH—Total Heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
SH—Sensible heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
WB—Leaving wet bulb temperature in degrees Fahrenheit.
DB—Leaving dry bulb temperature in degrees Fahrenheit.
Water T—Water temperature entering coil in degrees Fahrenheit.

WATER COOLING—TEMPERATURE CHART

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB / D.B. / Water T.	70															
	90				94				98				102			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6075	49.4	4090	51.8	6210	48.9	4510	51.9	6300	48.5	4910	52.0	6360	48.3	5280	52.7
50	4445	55.7	3350	58.7	4530	55.4	3760	58.9	4620	55.1	4160	59.1	4700	54.8	4575	59.3
60	2660	62.0	2660	65.1	3010	60.8	3010	65.9	3360	59.6	3360	66.6	3720	58.4	3720	67.2
70	1770	64.9	1770	73.5	2120	63.8	2120	74.2	2480	62.6	2480	74.8	2835	61.5	2835	75.5

ENT WB / D.B. / Water T.	72															
	82				86				90				94			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6235	51.7	3160	52.5	6380	51.1	3575	52.6	6485	50.7	3985	52.8	6600	50.2	4400	53.0
50	4660	57.7	2440	59.2	4775	57.1	2850	59.4	4865	56.9	3260	59.5	5010	56.4	3685	59.6
60	2865	63.7	1760	65.5	2990	63.3	2170	65.7	3085	63.0	2570	66.0	3170	62.7	2985	66.1
70	1060	69.1	1060	72.1	1420	68.1	1420	72.7	1770	67.1	1770	73.5	2120	66.1	2120	74.2

ENT WB / D.B. / Water T.	72															
	98				102				106				110			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6715	49.6	4820	53.0	6885	49.1	5240	53.0	6900	49.0	5630	53.4	7000	48.6	6040	53.6
50	5100	56.1	4085	59.8	5200	55.7	4485	60.1	5270	55.4	4900	60.3	5370	55.1	5300	60.5
60	3360	62.1	3360	66.6	3720	60.9	3720	67.2	4075	59.7	4075	67.9	4430	58.5	4430	68.6
70	2480	64.9	2480	74.8	2835	63.9	2835	75.5	3190	62.7	3190	76.2	3540	61.5	3540	76.9

ENT WB / D.B. / Water T.	74															
	82				86				90				94			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6680	53.0	3070	53.3	6810	52.5	3485	53.4	6950	51.9	3885	53.7	7050	51.6	4315	53.7
50	5030	59.1	2340	60.1	5225	58.5	2760	60.3	5330	58.1	3165	60.4	5470	57.6	3575	60.6
60	3275	64.7	1660	66.5	3440	64.4	2075	66.6	3570	64.0	2480	66.8	3690	63.6	2900	66.9
70	1200	70.9	1045	72.2	1420	70.3	1420	72.7	1770	69.3	1770	73.5	2120	68.3	2120	74.2

ENT WB / D.B. / Water T.	74															
	98				102				106				110			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	7170	51.1	4720	53.9	7300	50.6	5135	54.0	7420	50.1	5555	54.0	7525	49.7	5960	54.3
50	5600	57.1	3990	60.7	5700	56.7	4400	60.9	5775	56.3	4800	61.1	5860	56.1	5200	61.4
60	3730	63.5	3290	67.3	3810	63.2	3710	67.3	4070	62.3	4070	68.0	4430	61.2	4430	68.6
70	2480	67.3	2480	74.8	2835	66.3	2835	75.5	3190	65.1	3190	76.2	3540	64.1	3540	76.9

ENT WB / D.B. / Water T.	76															
	86				90				94				98			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	7240	53.9	3360	54.6	7385	53.4	3785	54.7	7480	52.9	4195	54.8	7620	52.5	4600	55.0
50	5600	60.0	2650	61.2	5740	59.5	3065	61.4	5920	58.9	3490	61.4	6010	58.6	3870	61.8
60	3810	65.7	1970	67.6	3960	65.2	2390	67.7	4050	64.9	2790	67.9	4185	64.5	3195	68.2
70	1690	71.6	1365	73.3	1820	71.3	1770	73.5	2120	70.5	2120	74.2	2480	69.4	2480	74.8

ENT WB / D.B. / Water T.	76															
	102				106				110				114			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	7750	51.9	5020	55.0	7900	51.4	5470	55.0	8000	50.9	5860	55.2	8150	50.3	6275	55.4
50	6175	57.9	4300	61.9	6280	57.6	4720	61.9	6340	57.4	5120	62.1	6500	56.8	5540	62.3
60	4320	64.1	3610	68.3	4440	63.7	3995	68.7	4570	63.3	4400	68.9	4780	62.7	4780	69.4
70	2835	68.5	2835	75.5	3190	67.4	3190	76.2	3540	66.4	3540	76.9	3900	65.4	3900	77.6

ENT WB / D.B. / Water T.	78															
	86				90				94				98			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	7590	55.8	3250	55.6	7800	55.1	3675	55.7	7950	54.5	4080	55.9	8100	53.9	4500	56.0
50	5910	61.7	2530	62.4	6175	60.8	2960	62.4	6360	60.2	3375	62.5	6490	59.7	3780	62.7
60	4150	67.2	1870	68.5	4400	66.5	2275	68.8	4510	66.1	2690	68.9	4680	65.6	3100	69.0
70	2170	72.6	1260	74.2	2310	72.3	1660	74.5	2420	72.0	2060	74.8	2550	71.7	2470	74.9

ENT WB / D.B. / Water T.	78															
	102				106				110				114			
	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	8240	53.4	4915	56.0	8360	52.9	5315	56.3	8550	52.2	5725	56.5	8700	51.6	6135	56.7
50	6600	59.4	4185	62.9	6740	58.9	4600	63.0	6880	58.3	5030	63.0	6980	58.0	5430	63.3
60	4800	65.2	3510	69.2	4900	64.9	3920	69.4	5000	64.6	4315	69.6	5090	64.3	4720	69.9
70	2835	70.9	2835	75.5	3190	69.9	3190	76.2	3540	68.9	3540	76.9	3900	67.9	3900	77.6

TH—Total Heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
SH—Sensible heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
WB—Leaving wet bulb temperature in degrees Fahrenheit.
DB—Leaving dry bulb temperature in degrees Fahrenheit.
Water T—Water temperature entering coil in degrees Fahrenheit.

WATER COOLING—TEMPERATURE CHART

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB	62															
D.B.	70				74				78				80			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4450	44.9	2630	45.4	4550	44.4	3070	45.3	4670	43.8	3510	45.2	4740	43.6	3725	45.2
50	2640	52.3	1810	53.1	2780	51.9	2250	53.0	2850	51.6	2675	53.0	2890	51.5	2890	53.0
60	963	58.8	963	61.0	1350	57.5	1350	61.4	1732	56.0	1732	61.8	1926	55.2	1926	62.0
70					385	60.8	385	70.4	770	59.4	770	70.8	963	58.8	963	71.0

ENT WB	62															
D.B.	82				86				90				94			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4750	43.5	3940	45.2	4810	43.2	4390	45.0	4810	43.2	4810	45.0	5200	41.6	5200	45.4
50	3080	50.7	3080	53.2	3470	49.0	3470	53.6	3860	47.5	3860	54.0	4240	45.9	4240	54.4
60	2120	54.6	2120	62.2	2505	53.0	2505	62.6	2890	51.6	2890	63.0	3275	50.0	3275	63.4
70	1159	58.1	1159	71.2	1540	56.9	1540	71.6	1925	55.2	1925	72.0	2310	53.9	2310	72.4

ENT WB	64															
D.B.	70				74				78				80			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	4890	45.7	2570	46.0	5000	45.2	3000	46.0	5110	44.7	3430	45.7	5150	44.5	3660	45.8
50	3040	53.3	1732	53.8	3200	52.7	2170	53.7	3280	52.4	2610	53.6	3330	52.2	2825	53.6
60	1070	60.5	952	61.1	1350	59.5	1350	61.4	1732	58.1	1732	61.8	1926	57.5	1926	62.0
70					385	62.9	385	70.4	770	61.4	770	70.8	963	60.9	963	71.0

ENT WB	64															
D.B.	82				86				90				94			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5200	44.3	3875	45.8	5270	44.0	4310	45.8	5360	43.6	4740	45.7	5400	43.4	5160	45.7
50	3380	52.0	3040	53.6	3470	51.7	3470	53.6	3860	50.0	3860	54.0	4240	48.5	4240	54.4
60	2120	56.8	2120	62.2	2505	55.4	2505	62.6	2890	54.0	2890	63.0	3275	52.5	3275	63.4
70	1159	60.1	1159	71.2	1540	59.0	1540	71.6	1925	57.6	1925	72.0	2310	56.1	2310	72.4

ENT WB	66															
D.B.	74				78				80				82			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5390	46.3	2920	46.7	5560	45.6	3360	46.6	5600	45.4	3570	46.6	5660	45.2	3800	46.5
50	3600	53.6	2100	54.4	3720	53.2	2540	54.3	3770	53.0	2750	54.3	3800	52.8	2965	54.3
60	1530	61.0	1318	61.7	1732	60.3	1732	61.8	1926	59.8	1926	62.0	2120	59.2	2120	62.2
70	385	64.8	385	70.4	770	63.5	770	70.8	963	63.0	963	71.0	1159	62.3	1159	71.2

ENT WB	66															
D.B.	86				90				94				98			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5700	45.0	4225	46.5	5800	44.5	4660	46.4	5890	44.2	5100	46.4	5950	43.9	5540	46.3
50	3900	52.5	3400	54.2	3980	52.2	3840	54.1	4240	51.1	4240	54.4	4630	49.7	4630	54.8
60	2505	57.8	2505	62.6	2890	56.5	2890	63.0	3275	55.0	3275	63.4	3660	53.5	3660	63.8
70	1540	61.0	1540	71.6	1925	59.8	1925	72.0	2310	58.5	2310	72.4	2700	57.1	2700	72.8

ENT WB	68															
D.B.	78				80				82				86			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	5950	46.9	3280	47.4	6040	46.5	3500	47.3	6110	46.2	3720	47.2	6250	45.6	4160	47.1
50	4200	54.0	2460	55.0	4250	53.8	2675	55.0	4320	53.6	2890	55.0	4420	53.2	3330	54.9
60	2130	61.4	1670	62.4	2200	61.2	1883	62.4	2260	61.1	2100	62.4	2505	60.1	2505	62.6
70	770	65.7	770	70.8	963	65.2	963	71.0	1159	64.6	1159	71.2	1540	63.3	1540	71.6

ENT WB	68															
D.B.	90				94				98				102			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6340	45.2	4600	47.0	6380	45.0	5040	47.0	6500	44.5	5460	47.0	6560	44.2	5890	47.0
50	4500	52.9	3760	54.9	4570	52.6	4200	54.7	4630	52.3	4630	54.8	5010	50.8	5010	55.2
60	2890	58.8	2890	63.0	3275	57.5	3275	63.4	3660	56.1	3660	63.8	4050	54.6	4050	64.2
70	1925	62.1	1925	72.0	2310	60.8	2310	72.4	2700	59.5	2700	72.8	3080	58.2	3080	73.2

ENT BW	70															
D.B.	78				80				82				86			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6420	48.0	3190	48.2	6500	47.6	3420	48.1	6590	47.3	3640	48.0	6690	46.9	4060	48.0
50	4600	55.2	2360	55.9	4700	54.8	2590	55.8	4750	54.6	2815	55.7	4880	54.1	3250	55.6
60	2600	62.2	1595	63.1	2690	61.9	1810	63.1	2750	61.7	2020	63.1	2810	61.5	2460	63.0
70	770	67.8	770	70.8	963	67.3	963	71.0	1159	66.7	1159	71.2	1540	65.6	1540	71.6

TH—Total Heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
SH—Sensible heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
WB—Leaving wet bulb temperature in degrees Fahrenheit.
DB—Leaving dry bulb temperature in degrees Fahrenheit.
Water T—Water temperature entering coil in degrees Fahrenheit.

WATER COOLING—TEMPERATURE CHART

Buffalo Type "PC" Central Conditioning Cabinets

ENT WB / D.B.	70															
	90				94				98				102			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	6800	46.3	4510	47.8	6900	46.0	4950	47.8	7010	45.5	5390	47.7	7090	45.2	5810	47.6
50	4950	53.8	3680	55.6	5040	53.5	4120	55.5	5120	53.2	4550	55.5	5170	53.0	4990	55.4
60	2890	61.2	2890	63.0	3275	59.9	3275	63.4	3660	58.8	3660	63.8	4050	57.2	4050	64.2
70	1925	64.3	1925	72.0	2310	63.1	2310	72.4	2700	61.8	2700	72.8	3080	60.6	3080	73.2

ENT WB / D.B.	72															
	82				86				90				94			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	7010	48.6	3540	48.9	7150	48.0	3980	48.8	7240	47.6	4410	48.8	7370	47.0	4860	48.5
50	5220	55.7	2720	56.6	5350	55.2	3160	56.5	5450	54.8	3595	56.4	5570	54.3	4040	56.3
60	3230	62.6	1950	63.8	3300	62.3	2375	63.8	3400	62.0	2815	63.7	3540	61.6	3255	63.3
70	1159	68.8	1159	71.2	1540	67.7	1540	71.6	1925	66.6	1925	72.0	2310	65.5	2310	72.4

ENT WB / D.B.	72															
	98				102				106				110			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	7460	46.6	5300	48.5	7560	46.2	5750	48.4	7680	45.7	6160	48.4	7720	45.5	6600	48.4
50	5650	54.0	4470	56.2	5760	53.6	4900	56.2	5830	53.3	5350	56.0	5860	53.2	5760	56.1
60	3660	61.2	3660	63.8	4050	59.8	4050	64.2	4430	58.5	4430	64.6	4810	57.2	4810	65.0
70	2700	64.2	2700	72.8	3080	63.1	3080	73.2	3470	61.8	3470	73.6	3850	60.5	3850	74.0

ENT WB / D.B.	74															
	82				86				90				94			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	7520	49.7	3445	49.8	7650	49.2	3900	49.6	7790	48.6	4320	49.6	7890	48.2	4760	49.5
50	5650	56.9	2630	57.4	5850	56.2	3080	57.2	5920	55.9	3500	57.2	6100	55.2	3940	57.2
60	3690	63.6	1850	64.7	3850	63.1	2290	64.6	3990	62.7	2730	64.5	4070	62.4	3165	64.4
70	1320	70.5	1145	71.3	1540	69.9	1540	71.6	1925	68.8	1925	72.0	2310	67.7	2310	72.4

ENT WB / D.B.	74															
	98				102				106				110			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	8000	47.7	5210	49.3	8140	47.1	5650	49.1	8250	46.6	6100	49.0	8350	46.2	6530	49.0
50	6250	54.7	4390	57.0	6320	54.4	4810	57.0	6380	54.2	5260	56.9	6460	53.8	5700	56.9
60	4160	62.1	3600	64.4	4250	61.8	4040	64.3	4430	61.2	4430	64.6	4810	60.0	4810	65.0
70	2700	66.6	2700	72.8	3080	65.5	3080	73.2	3470	64.3	3470	73.6	3850	63.1	3850	74.0

ENT WB / D.B.	76															
	86				90				94				98			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	8110	50.5	3785	50.6	8270	49.9	4220	50.5	8380	49.4	4660	50.4	8500	48.9	5110	50.3
50	6290	57.5	2980	58.2	6450	56.9	3415	58.1	6600	56.3	3850	58.0	6690	56.0	4260	58.1
60	4300	64.2	2195	65.5	4460	63.7	2640	65.3	4540	63.3	3070	65.3	4630	63.0	3510	65.2
70	1900	71.0	1490	72.1	1980	70.8	1928	72.0	2310	70.0	2310	72.4	2700	68.8	2700	72.8

ENT WB / D.B.	76															
	102				106				110				114			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	8650	48.3	5550	50.1	8760	47.8	6000	50.0	8860	47.4	6410	50.0	9070	46.5	6870	49.2
50	6840	55.4	4740	57.8	6950	55.0	5160	57.7	7050	54.7	5600	57.6	7170	54.2	6050	57.5
60	4840	62.5	3950	65.1	4940	62.2	4360	65.1	4960	62.1	4810	65.0	5200	61.3	5200	65.4
70	3080	67.8	3080	73.2	3470	66.7	3470	73.6	3850	65.5	3850	74.0	4240	64.4	4240	74.4

ENT WB / D.B.	78															
	86				90				94				98			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	8690	51.7	3670	51.7	8800	51.2	4130	51.4	8940	50.7	4560	51.4	9100	50.0	5010	51.2
50	6710	58.9	2870	59.2	7000	58.0	3320	59.0	7130	57.5	3760	58.9	7300	56.9	4200	58.6
60	4730	65.5	2100	66.4	4930	64.9	2540	66.3	5100	64.3	2980	66.2	5250	63.9	3415	66.1
70	2500	71.8	1390	73.0	2600	71.5	1830	72.9	2670	71.3	2250	72.8	2800	71.0	2700	72.8

ENT WB / D.B.	78															
	102				106				110				114			
Water T.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.	T.H.	W.B.	S.H.	D.B.
40	9250	49.4	5460	51.0	9350	49.0	5890	51.0	9600	47.9	6330	50.9	9710	47.4	6760	50.8
50	7380	56.6	4630	58.8	7500	56.2	5060	58.7	7650	55.6	5510	58.5	7700	55.4	5940	58.5
60	5350	63.5	3850	66.0	5450	63.2	4290	66.0	5550	62.9	4710	66.0	5610	62.7	5150	65.9
70	3080	70.2	3080	73.2	3470	69.2	3470	73.6	3850	68.1	3850	74.0	4240	67.0	4240	74.4

TH—Total Heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
SH—Sensible heat in BTU/hr per 100 CFM for base CFM capacity and base GPM flow.
WB—Leaving wet bulb temperature in degrees Fahrenheit.
DB—Leaving dry bulb temperature in degrees Fahrenheit.
Water T—Water temperature entering coil in degrees Fahrenheit.

HEATING CAPACITY—BTU PER 100 CFM

Ent. Temp.	TWO ROW								ONE ROW							
	2 Lbs.		5 Lbs.		10 Lbs.		20 Lbs.		2 Lbs.		5 Lbs.		10 Lbs.		20 Lbs.	
	Final Temp.	B.t.u.	Final Temp.	B.t.u.	Final Temp.	B.t.u.	Final Temp.	B.t.u.	Final Temp.	B.t.u.	Final Temp.	B.t.u.	Final Temp.	B.t.u.	Final Temp.	B.t.u.
0	125	12350	129	12700	137	13300	148	14050	73	7900	75	8120	79	8500	85	9000
20	132	11075	137	11400	145	12000	155	12770	87	7075	89	7300	93	7670	99	8170
40	142	9775	146	10200	153	10700	165	11600	101	6250	103	6480	107	6850	113	7410
60	151	8580	156	9000	163	9600	173	10300	115	5490	118	5900	122	6140	128	6700
70	155	7980	159	8320	166	8900	176	9700	122	5100	124	5310	128	5710	134	6200
80	158	7380	163	7775	171	8340	182	9170	129	4720	131	4960	135	5340	141	5870
0	114	11650	119	12000	126	12600	136	13300	66	7290	68	7470	72	7850	76	8290
20	125	10500	129	10800	136	11360	145	12075	80	6520	82	6730	87	7075	92	7540
40	134	9250	138	9560	146	10200	155	10950	95	5770	97	5970	100	6300	107	6830
60	145	8100	148	8400	155	9000	165	9750	110	5060	112	5230	116	5610	121	5530
70	150	7560	154	7900	160	8450	170	9180	117	4700	119	4900	122	5250	129	5720
80	154	7000	159	7360	165	7900	176	8700	124	4350	127	4590	130	4930	136	5400
0	104	10730	107	11000	113	11550	123	12220	58	6570	60	6750	64	7060	68	7470
20	116	9620	119	9920	125	10400	133	11120	74	5880	76	6060	79	6380	84	6780
40	126	8500	130	8800	136	9310	144	10100	89	5200	91	5375	94	5700	99	6150
60	137	7470	141	7850	148	8420	156	9000	105	4550	107	4780	111	5150	115	5500
70	142	6920	146	7280	152	7760	161	8420	113	4240	115	4410	118	4740	122	5150
80	148	6420	151	6750	157	7220	167	7990	120	3920	122	4140	125	4430	130	4875

To approximate the condensate in pounds per hour, divide the B.t.u. by 960.

Hot water can be used for heating medium in which case, refer factory for ratings.

Heating coils are standard 82 or 81 Aerofin Flexitube. Performance for other conditions than above can be figured from Aerofin Bulletin 32 for face area listed in physical data table.

EXAMPLE --- How to Apply Charts

GIVEN FOR A RESTAURANT

Outdoor Condition—

Summer 95° DB, 78° WB — Winter 0° DB

Indoor Condition—

Summer 80° DB, 65° WB — Winter 70° WB

Fresh Air—

Not less than 1000 cfm. summer or winter.

Heating Medium—

Steam at 2 lbs. pressure.

Cooling Medium—

(a) Direct expansion Freon at 40° F.
(b) Cold water at 40° F.

Summer Room (Internal) Load—

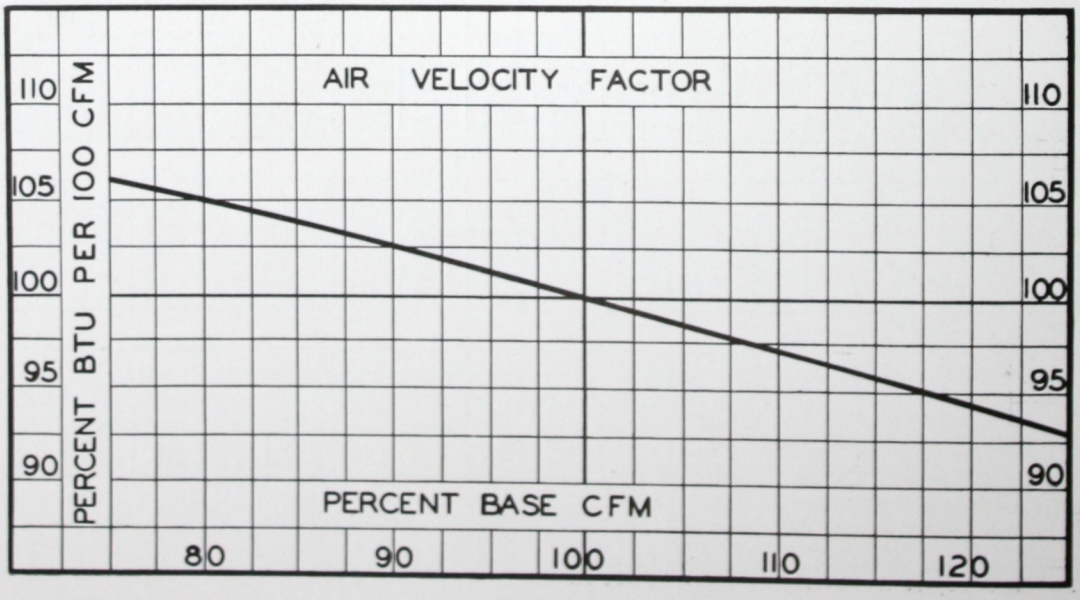
S. H.=77,000 Btu/hr.
T. H.=96,000 Btu/hr.
L. H.=19,000 Btu/hr.

Winter Room Loss—

200,000 Btu/hr.

Air Temperature—

Air to be introduced at not less than 60° in summer.



DETERMINE DIRECT EXPANSION COIL

Air must absorb 77,000 Btu/hr S. H. in rising from 60° to 80°.

Total weight of air required =

$$\frac{77000 \text{ Btu/hr.}}{(80\text{-}60) \times .241^*} = 16000 \text{ Lb/hr.}$$

Total cfm. air required =
16000 lb/hr x .225** = 3600 Cfm. @ 80°.
% Fresh air 1000/3600 = 27.8%.
% Recirc. air 2600/3600 = 72.2%.

Air Condition Entering Coil—

Entering DB temperature =
80° + .278 (95-80) = 84.2°.
Btu/lb air at 78° WB = 40.64 (Table P. 26).
Btu/lb air at 65° WB = 29.65 (Table P. 26).
Entering Btu/hr =
29.65 + .278 (40.64-29.65) = 32.7.
Entering WB temperature = 69° (Table P. 26)

Air Condition Leaving Coil and Entering Room—

Leaving DB temp = 60° (Given)
Leaving Btu/lb =

$$29.65 - \frac{96000 \text{ Btu/hr.}}{16000 \text{ Lbs/hr.}} = 23.65$$

Leaving WB temperature = 56° (Table P. 26).

Total Loads Required of Cooling Coil—

Total Heat = 16000 lb/hr x(32.7—23.65) = 145,000 Btu/hr.
Sens. Heat = 16000 lb/hr x (84.2°-60°) .241* = 93,300 Btu/hr.

Heat Transmission Required per 100 CFM—

$$\text{TH/100 cfm} = \frac{145{,}000}{3600/100} = 4030$$

$$\text{SH/100 cfm} = \frac{93{,}300}{3600/100} = 2590$$

Size of Unit Required—

From inspection of the capacity table, the No. B-152 PC comes closest to the desired cfm.

Size Direct Expansion Coil—

From air velocity factor curve, pg. 24, for 3600/4000 = 90% base capacity, the transmission per 100 cfm. will be 102.5% of that listed in table. Select from direct expansion tables a coil and a refrigerant temperature that with 84° Ent. DB and 69° WB will give:
TH/100 cfm. = 4030/102.5 = 3935 and
SH/100 cfm. = 2590/102.5 = 2530

By inspection of direct expansion tables, a 2-row coil would require a refrigerant temperature of about 30° to give a TH/100 cfm. of 3935 and a refrigerant temperature of about 28½° to give a SH/100 cfm. of 2530. A 3-row coil would require a refrigerant temperature of about 40° to give a TH/100 cfm. of 3935 and a refrigerant temperature of about 40° to give a SH/100 cfm. of 2530.

From the above trials, it is seen that a 3-row coil with a refrigerant temperature of 40° meets the conditions almost exactly and should be used.

* Specific heat of air = .241.
** 1 Lb. air per hour at 80° = .225 cu. ft. air per minute.

DETERMINE WATER COIL

By inspecting the 4-row water cooling table, it is seen that a water temperature higher than 40° is required to give 3935 TH/100 cfm. and 2530 SH/100 cfm. These values for 40° water and for 84° DB and 69° WB (by interpolation) will be 4715 TH/100 cfm. and 2945 SH/100 cfm. By interpolating for 40° and 50° water, the temperature required will be 45°.

DETERMINE HEATING COIL

With 200,000 Btu/hr room loss and 1000 cfm. fresh air, the total heating required will be:

$$200{,}000 + \frac{1000}{.225^{**}} (70^\circ\text{-}0^\circ) \times .241^* = 275{,}000 \text{ Btu/hr.}$$

With 27.8% fresh air at 0° and 72.2% recirculated at 70° the temperature entering the coil would be:

0 + .722 (70°-0°) = 50°.

Interpolating from the heating capacity table P. 24—for 90% capacity, 2 lbs. steam and 50° entering temperature,, a 2-row coil gives 8800 Btu/100 cfm. the Btu. will be:

8800 x 3600/100 = 317,000 Btu/hr. A 2-row coil should be used.

DETERMINE FAN SPEED

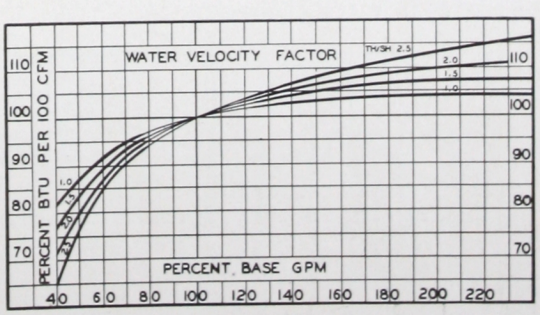
Total Air Resistance—

Assume that the 4-row water coil is to be used and that the external resistance of connections including fresh (or return) air connection, discharge duct and grilles totals .18", then the total static pressure required of fans when handling 3600 cfm. as interpolated from resistance table (P. 28) will be:

Filters	.15
4-row Water Coil	.21
2-row Heating Coil	.08
External	.18
	.62

Speed and Horsepower—

Interpolating from speed and horsepower table (P. 28) for 3600 cfm. and ⅝" sp. fans should run at 785 rpm. and require .75 B hp. Use 1 hp. motor.



TOTAL HEAT OF AIR TO TENTHS OF A DEGREE

Heat Content (B. T. U.) of 1 Lb. of Dry Air with Vapor to saturate it

Wet Bulb Temp.	Tenths									
	0	1	2	3	4	5	6	7	8	9
36	**13.44**	.48	.53	.57	.61	.66	.70	.74	.79	.83
37	**13.87**	.91	.96	**14.00**	.04	.09	.13	.18	.22	.26
38	**14.31**	.35	.40	.44	.49	.53	.58	.62	.67	.71
39	**14.76**	.80	.85	.89	.94	.98	**15.03**	.07	.12	.16
40	**15.21**	.25	.30	.35	.39	.41	.48	.55	.58	.62
41	**15.67**	.72	.76	.81	.86	.90	.95	**16.00**	.04	.09
42	**16.14**	.19	.24	.28	.33	.38	.43	.48	.52	.57
43	**16.62**	.67	.72	.76	**.81**	.86	.91	.96	**17.00**	.05
44	**17.10**	.15	.20	.25	.30	.34	.39	.44	.49	.54
45	**17.59**	.64	.69	.74	.79	.84	.89	.94	.99	**18.04**
46	**18.09**	.14	.19	.24	.29	.35	.40	.45	.50	.55
47	**18.60**	.65	.70	.76	**.81**	.86	.91	.96	**19.02**	.07
48	**19.12**	.17	.23	.28	.33	.39	.44	.49	.55	.60
49	**19.65**	.70	.76	.81	.87	.92	.92	**20.03**	.08	.14
50	**20.19**	.24	.30	.35	.41	.46	.52	.57	.63	**.68**
51	**20.74**	.80	.85	.91	.96	**21.02**	.08	.13	.19	.25
52	**21.30**	.36	.41	.47	.53	.58	.64	.70	.75	**.81**
53	**21.87**	.93	.99	**22.05**	.10	.16	.22	.27	.33	.39
54	**22.45**	.51	.57	.63	.69	.74	.80	.86	.92	.98
55	**23.04**	.10	.16	.22	.28	.34	.40	.46	.52	.58
56	**23.64**	.70	.76	.82	.88	.95	**24.01**	.07	.13	.19
57	**24.25**	.31	.38	.44	.50	.57	.63	.69	.76	.82
58	**24.88**	.94	**25.01**	.07	.14	.20	.26	.33	.39	.46
59	**25.52**	.59	.65	.72	.78	.85	.92	.98	**26.05**	.11
60	**26.18**	.25	.31	.38	.44	.51	.58	.64	.71	.77
61	**26.84**	.91	.98	**27.04**	.11	.18	.25	.31	.38	.45
62	**27.52**	.59	.66	.73	.80	.87	.94	**28.01**	.08	.15
63	**28.22**	.29	.36	.43	.50	.58	.65	.72	.79	.86
64	**28.93**	**29.00**	.07	.15	.22	.29	.36	.44	.51	.58
65	**29.65**	.72	.80	.87	.94	**30.02**	.09	.17	.24	.32
66	**30.39**	.47	.54	.62	.70	.77	.85	.92	**31.00**	.07
67	**31.15**	.23	.31	.38	.46	.54	.61	.69	.77	**.84**
68	**31.92**	**32.00**	.08	.16	.24	.32	.39	.47	.55	.63
69	**32.71**	.79	.87	.95	**33.03**	.11	.19	.27	.35	.43
70	**33.51**	.59	.67	.76	.84	.92	**34.00**	.09	.17	.25
71	**34.33**	.41	.50	.58	.67	.75	.84	.92	**35.00**	.09
72	**35.17**	.26	.34	.43	.51	.60	.68	.77	.86	.94
73	**36.03**	.12	.21	.30	.38	.47	.56	.65	.73	.82
74	**36.91**	**37.00**	.09	.18	.27	.36	.45	.54	.63	.72
75	**37.81**	.90	.99	**38.08**	.18	.27	.36	.45	.55	.64
76	**38.73**	.82	.92	**39.01**	.10	.20	.29	.39	.48	**.58**
77	**39.67**	.77	.87	.96	**40.06**	.16	.25	.35	.45	.54
78	**40.64**	.74	.84	.94	**41.04**	.13	.23	.33	.43	.53
79	**41.63**	.73	.83	.93	**42.03**	.14	.24	.34	.44	.54
80	**42.64**	.74	.84	.95	**43.05**	.15	.26	.36	.46	.57

Explanation of Psychometric Chart

The psychrometric chart on the adjacent page is a simplified chart giving direct readings in dry-bulb, wet-bulb, and dew-point temperatures. As indicated on the small diagram, Fig. 1: horizontal distances are a measure of sensible heat as obtained from dry-bulb temperatures; vertical distances are a measure of latent heat as obtained from the dew-point temperatures; inclined (solid) lines are a measure of total heat (not including heat of the liquid) and are constant for a given wet-bulb temperature. The curved lines indicate relative humidity between the limiting conditions of dry and saturated air.

To obtain **Grains of Water Vapor** per pound of dry air in the mixture proceed to the left through the dew-point temperature to the scale of grains at the left of the chart. See Fig. 2.

To obtain **Cubic Feet of Mixture** per pound of dry air in the mixture proceed from the intersection of dry-bulb, wet-bulb and dew-point temperature upward parallel with the inclined volume lines (shown dotted) to the saturation curve and then directly to the volume scale at the right of the chart. See Fig. 3.

To obtain **Grains of Water Vapor per Cubic Foot of Mixture** divide the reading obtained through Fig. 2 by that obtained through Fig. 3.

To obtain **Total Heat** per pound of dry air in the mixture follow up along the inclined wet-bulb temperature line to the saturation curve and then vertically upward to the total heat scale at the top of the chart. See Fig. 4

Example[2]—Given 80° dry-bulb and 65° wet-bulb temperatures. The intercection of these two conditions shows 45% relative humidity, 56.5° dew point, 29.6 Btu. per lb. of dry air total heat, 68 grains per pound of dry air, 13.79 cu. ft. of mixture per lb. of dry air and 68/13.79=4.94 grains of water vapor per cu. ft. of mixture. From the intersection point of any two variables, the remaining variables may be determined.

Note:—In the region of 65° to 75° effective temperature, the volume lines (shown dotted) very closely approximate the effective temperature lines in still air for persons normally clothed and slightly active. In the above example follow up parallel with the volume lines to the saturation curve and read 73° effective temperature.

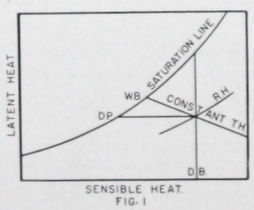


FIG. 1

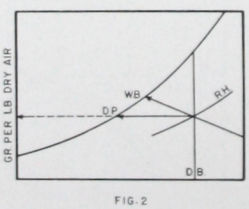


FIG. 2

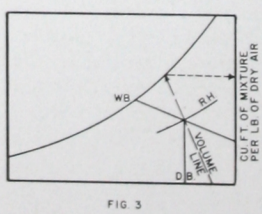


FIG. 3

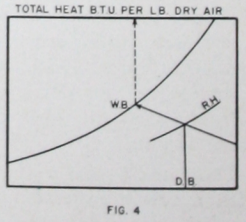
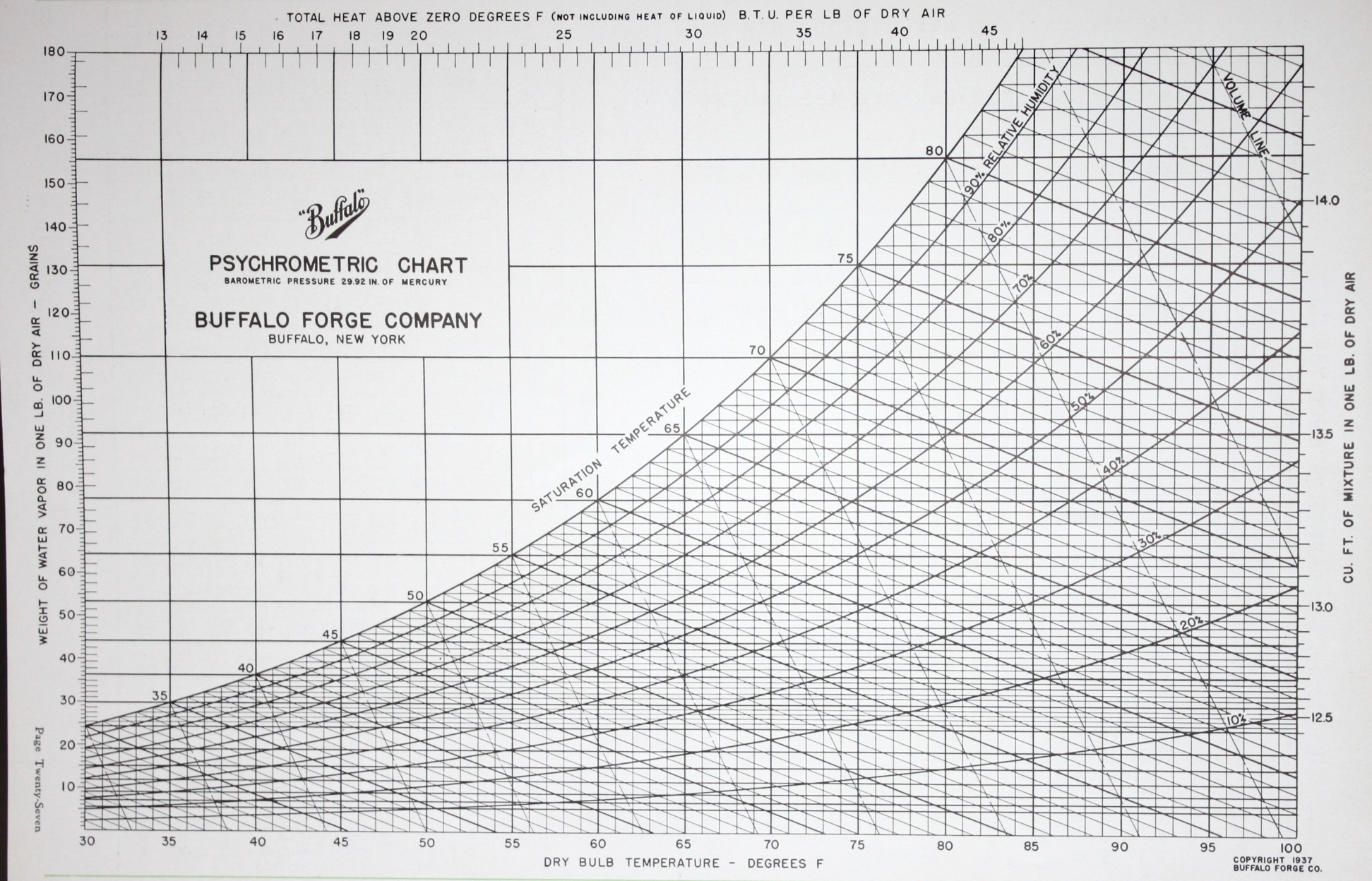


FIG. 4


TOTAL HEAT ABOVE ZERO DEGREES F (NOT INCLUDING HEAT OF LIQUID) B.T.U. PER LB OF DRY AIR
13 14 15 16 17 18 19 20 25 30 35 40 45
"Buffalo"
PSYCHROMETRIC CHART
BAROMETRIC PRESSURE 29.92 IN. OF MERCURY
BUFFALO FORGE COMPANY
BUFFALO, NEW YORK
SATURATION TEMPERATURE
90% RELATIVE HUMIDITY
80%
70%
60%
50%
40%
30%
20%
10%
VOLUME LINE
WEIGHT OF WATER VAPOR IN ONE LB. OF DRY AIR — GRAINS
CU. FT. OF MIXTURE IN ONE LB. OF DRY AIR
DRY BULB TEMPERATURE - DEGREES F
COPYRIGHT 1937
BUFFALO FORGE CO.

AIR RESISTANCE TABLE

Size	CFM	COOLING COILS (Wet)*							HEATING COILS		Filters
		Direct Expansion				Cold Water					
		2 Row	3 Row	4 Row	5 Row	4 Row	6 Row	8 Row	1 Row	2 Row	
B121-PC	675	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	900	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**
	1,125	.23	.33	.42	.51	.41	.59	.80	.08	.15	.30
B122-PC	1,350	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	1,800	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**
	2,250	.23	.33	.42	.51	.41	.59	.80	.08	.15	.30
B123-PC	2,025	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	2,700	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**
	3,375	.23	.33	.42	.51	.41	.59	.80	.08	.15	.30
B151-PC	1,200	.08	.12	.15	.19	.13	.20	.27	.02	.03	.08
	1,600	**.15**	**.21**	**.27**	**.33**	**.24**	**.36**	**.48**	**.04**	**.06**	**.15**
	2,000	.23	.33	.42	.51	.38	.56	.75	.06	.10	.23
B152-PC	3,000	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	4,000	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**
	5,000	.23	.33	.42	.51	.41	.59	.80	.08	.15	.30
B182-PC	4,050	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	5,400	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**
	6,750	.23	.33	.42	.51	.41	.59	.80	.08	.15	.30
B212A-PC	5,025	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	6,700	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**
	8,375	.23	.33	.42	.51	.41	.59	.80	.08	.15	.30
B212B-PC	6,000	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	8,000	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**
	10,000	.23	.33	.42	.51	.41	.59	.80	.08	.15	.30
B302-PC	7,200	.08	.12	.15	.19	.15	.21	.29	.03	.06	.11
	9,600	**.15**	**.21**	**.27**	**.33**	**.26**	**.38**	**.51**	**.05**	**.10**	**.19**

*For Dry Coils Multiply Values by 2/3.

SPEED AND HORSEPOWER TABLE

Size	CFM	½" S.P.			⅝" S.P.			¾" S.P.			⅞" S.P.			1" S.P.			1¼" S.P.			1½" S.P.		
		RPM	Fan HP	M HP	RPM	Fan HP	M HP	RPM	Fan HP	M HP	RPM	Fan HP	M HP	RPM	Fan HP	M HP	RPM	Fan HP	M HP	RPM	Fan HP	M HP
B121-PC	675	837	.11	¼	935	.14	¼	1025	.18	¼	1105	.22	⅓	1181	.26	⅓	1320	.35	½	1440	.44	¾
	900	**859**	**.14**	¼	**944**	**.18**	¼	**1027**	**.22**	⅓	**1110**	**.26**	⅓	**1183**	**.30**	½	**1323**	**.40**	½	**1445**	**.50**	¾
	1125	905	.19	¼	985	.23	⅓	1060	.27	⅓	1125	.31	½	1198	.35	½	1330	.46	¾	1456	.56	¾
B122-PC	1350	837	.22	⅓	935	.28	⅓	1025	.36	½	1105	.44	¾	1181	.52	¾	1320	.70	1	1440	.88	1
	1800	**859**	**.28**	⅓	**944**	**.36**	½	**1027**	**.44**	¾	**1110**	**.52**	¾	**1183**	**.60**	¾	**1323**	**.80**	1	**1445**	**1.0**	1½
	2250	905	.38	½	985	.46	¾	1060	.54	¾	1125	.62	¾	1198	.70	1	1330	.92	1½	1456	1.12	1½
B123-PC	2025	837	.33	½	935	.42	½	1025	.54	¾	1105	.66	¾	1181	.78	1	1320	1.05	1½	1440	1.32	1½
	2700	**859**	**.42**	½	**944**	**.54**	¾	**1027**	**.66**	¾	**1110**	**.78**	1	**1183**	**.90**	1	**1323**	**1.2**	1½	**1445**	**1.5**	**2**
	3375	905	.57	¾	985	.69	1	1060	.81	1	1125	.93	1½	1198	1.05	1½	1330	1.38	1½	1456	1.68	2
B151-PC	1200	672	.19	⅓	743	.25	⅓	807	.30	½	870	.35	½	929	.42	¾	1030	.54	¾	1127	.67	¾
	1600	**700**	**.26**	½	**760**	**.32**	½	**830**	**.38**	½	**890**	**.45**	¾	**940**	**.52**	¾	**1045**	**.66**	¾	**1140**	**.81**	1
	2000	738	.35	½	798	.42	¾	860	.49	¾	915	.56	¾	970	.64	¾	1065	.80	1	1157	.97	1½
B152-PC	3000	685	.48	¾	760	.60	¾	825	.72	1	882	.86	1	937	.98	1½	1041	.26	1½	1135	1.56	2
	4000	**738**	**.70**	1	**798**	**.84**	1	**860**	**.98**	1½	**915**	**1.12**	1½	**970**	**1.28**	1½	**1063**	**1.6**	**2**	**1155**	**1.94**	**3**
	5000	800	1.02	1½	855	1.18	1½	910	1.34	1½	960	1.5	2	1007	1.68	2	1100	2.02	3	1190	2.4	3
B182-PC	4050	530	.62	¾	585	.78	1	636	.96	1½	683	1.14	1½	726	1.33	1½	808	1.74	2	878	2.15	3
	5400	**550**	**.84**	1	**605**	**1.04**	1½	**655**	**1.23**	1½	**702**	**1.45**	**2**	**742**	**1.66**	**2**	**823**	**2.12**	**3**	**895**	**2.6**	**3**
	6750	580	1.15	1½	630	1.37	1½	678	1.59	2	721	1.82	2	764	2.06	3	842	2.57	3	912	3.1	5
B212A-PC	5025	456	.76	1	509	.98	1½	554	1.22	1½	595	1.47	2	637	1.73	2	705	2.3	3	770	2.84	3
	6700	**475**	**1.01**	1½	**521**	**1.25**	1½	**565**	**1.5**	**2**	**605**	**1.78**	**2**	**645**	**2.06**	**3**	**716**	**2.66**	**3**	**780**	**3.32**	**5**
	8375	501	1.38	1½	544	1.64	2	584	1.9	3	620	2.19	3	660	2.5	3	727	3.15	5	791	3.85	5
B212B-PC	6000	466	.90	1	515	1.13	1½	560	1.37	1½	601	1.64	2	640	1.91	2	710	2.49	3	775	3.13	5
	8000	**496**	**1.30**	1½	**539**	**1.54**	**2**	**580**	**1.80**	**2**	**619**	**2.09**	**3**	**655**	**2.40**	**3**	**725**	**3.00**	**5**	**787**	**3.72**	**5**
	10000	535	1.88	2	574	2.16	3	611	2.45	3	645	2.76	3	679	3.07	5	743	3.76	5	805	4.46	5
B302-PC	7200	567	.96	1½	620	1.19	1½	665	1.42	2	721	1.68	2	764	1.94	3	845	2.44	3	920	2.98	5
	9600	**600**	**1.36**	**2**	**653**	**1.65**	**2**	**703**	**1.96**	**3**	**747**	**2.25**	**3**	**790**	**2.55**	**3**	**867**	**3.14**	**5**	**941**	**3.79**	**5**

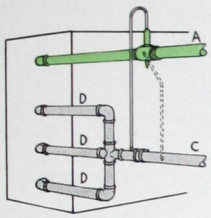
TYPICAL LIQUID AND SUCTION LINE CONNECTIONS

for

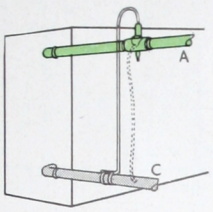
DIRECT EXPANSION OF FREON AND METHYL CHLORIDE

for

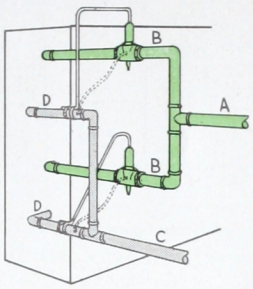
BASE CAPACITY OF UNIT



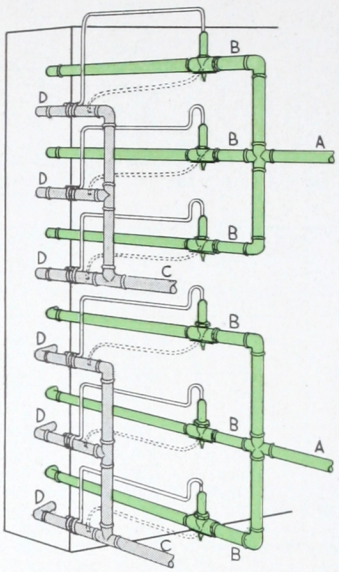
No. 121 "PC"



No. 122 "PC"
No. 123 "PC"



No. 151 "PC"
No. 152 "PC"



No. 302 "PC"

CAPILLARY TUBING-REMOTE BULB

EXTERNAL EQUALIZING TUBE

The use of an external equalizer tube is recommended with each valve.

Coils are supplied with two or three rows in one casing. If four or five rows of coil are to be used, two coil sections deep (direction of air flow) will be required in which case the number of connections will be doubled.

Size Unit	REFRIGERANT Valve Base Tons	Valve No. Required	Valve Capacity TR	FREON Liquid A	FREON Liquid B	FREON Suction C	FREON Suction D	METHYL CHLORIDE Liquid A	METHYL CHLORIDE Liquid B	METHYL CHLORIDE Suction C	METHYL CHLORIDE Suction D	*COIL HEADER CONNECTIONS Liquid No.	Liquid Size	Suction No.	Suction Size
B121-PC	3⅓	1	4	⅝″		1⅛″	⅝″	⅜″		⅞″	⅝″	1	1⅛″	3	⅝″
B122-PC	6⅔	1	8	⅞″		1⅜″		⅝″		1⅛″		1	1⅛″	1	1⅝″
B123-PC	10	1	12	⅞″		1⅝″		⅝″		1⅜″		1	1⅛″	1	1⅝″
B151-PC	6	2	4	⅞″	⅝″	1⅜″	1⅛″	⅝″	⅜″	1⅛″	⅞″	2	1⅛″	2	2⅛″
B152-PC	15	2	9	1⅛″	⅞″	2⅛″	1⅜″	⅞″	⅝″	1⅜″	1⅛″	2	1⅛″	2	1⅝″
B182-PC	20	Coil consists of 2—No. 123 coils high.													
B212A-PC	25	Coil consists of 1—No. 123 and 1—No. 152 coils high. (No. 123 coil on top).													
B212B-PC	30	Coil consists of 2—No. 152 coils high.													
B302-PC	36	6	7	1⅛″	⅞″	2⅛″	1⅛″	⅞″	⅝″	1⅝″	1⅛″	6	1⅛″	6	1⅝″

Above are minimum sizes O. D. tubes 50 feet long for a suction line drop of not to exceed 2°F and a liquid line loss not to exceed 5 lbs. per sq. in. For longer lines or higher tonnages, these sizes should be increased if it is desired to keep the losses within the above limits.

The capacities of the "PC" coils given in the rating tables are based on the refrigerant temperature shown, being maintained at the coil discharge. In selecting the compressor, allowance must be made for whatever line loss is present. If the suction line loss is excessive, the compressor will have to operate at a suction temperature equal to the suction temperature maintained at the coil minus this line loss. If the liquid line loss is excessive, some expansion will take place before the expansion valve resulting in sufficient "flash" to seriously affect the capacity of the valve.

* Coil header connections are for O. D. tubing of sizes listed.

PHYSICAL DATA—BUFFALO TYPE "PC" CENTRAL CONDITIONING CABINETS

Base Rating*				Direct Expansion Cooling Coils							
				Square Feet Surface		Square Feet Face Area	Cubic Foot Contents Per Row	Connections			
								Liquid		Suction	
Size Unit	Tons Refrigerant	CFM	Average Motor H.P.	3 Row	2 Row			No.	Size	No.	Size
B-121	3⅓	900	⅓	127	91	2.25	.045	1	1⅛″	3	⅝″
B-122	6⅔	1800	¾	242	174	4.5	.090	1	1⅛″	1	1⅝″
B-123	10	2700	1	372	267	6.75	.135	1	1⅛″	1	1⅝″
B-151	6	1600	¾	183	122	4.0	.080	2	1⅛″	2	2⅛″
B-152	15	4000	1½	559	401	10.0	.200	2	1⅛″	2	1⅝″
B-182	20	5400	2	744	534	13.5	.270	2	1⅛″	2	1⅝″
B-212A	25	6700	3	931	667	16.8	.336	3	1⅛″	3	1⅝″
B-212B	30	8000	3	1118	802	20.0	.400	4	1⅛″	4	1⅝″
B-302	36	9600	5	1358	974	24.0	.480	6	1⅛″	6	1⅝″

*Base rating is for 3-row DE Coil with 85° db. 71° wb. entering air and 40° refrigerant, 100% CFM.

Size Unit	Water Cooling Coils											
	Square Feet Surface			Square Feet Face Area	Connections				G P M	Water Resistance in Feet		
					Supply		Return					
	4 Row	6 Row	8 Row		No.	Size	No.	Size		4 Row	6 Row	8 Row
B-121	144	216	288	2.25	1	2″	1	2″	20	2	3	4
B-122	288	432	576	4.5	1	2″	1	2″	25	4	6	8
B-123	432	648	864	6.75	1	2″	1	2″	30	7	10	14
B-151	240	360	480	4.0	1	2″	1	2″	30	2	3	4
B-152	638	957	1276	10.0	1	2″	1	2″	40	6	9	12
B-182	861	1291	1722	13.5	2	2″	2	2″	55	6	9	12
B-212A	1070	1605	2140	16.8	2	2″	2	2″	70	6	9	12
B-212B	1276	1914	2552	20.0	2	2″	2	2″	80	6	9	12
B-302	1530	2295	3060	24.0	2	2″	2	2″	85	7	10	14

Size Unit	Heating Coils										
	Square Feet Surface		Square Feet Face Area	Steam Connections				Return Connections			
				1 Row		2 Row		1 Row		2 Row	
	2 Row	1 Row		No.	Size	No.	Size	No.	Size	No.	Size
B-121	72	36	2.25	1	2″	2	2″	1	2″	2	2″
B-122	144	72	4.5	1	2″	2	2″	1	2″	2	2″
B-123	216	108	6.75	1	2″	2	2″	1	2″	2	2″
B-151	120	60	4.0	1	2″	2	2″	1	2″	2	2″
B-152	319	160	10.0	1	2″	2	2″	1	2″	2	2″
B-182	430	215	13.5	2	2″	4	2″	2	2″	4	2″
B-212A	535	267	16.8	2	2″	4	2″	2	2″	4	2″
B-212B	638	319	20.0	2	2″	4	2″	2	2″	4	2″
B-302	765	382	24.0	2	2″	4	2″	2	2″	4	2″

Size Unit	Humidifier						Filters	
	Lbs. Water Evaporation Per Hour	Coil and Pan Type Size Connection			Spray Type		No.	Size
		Steam	Return	Water	Number Nozzles	Size, Water Connection		
B-121	10	¾″	¾″	¼″	1	¼″	1	20 x 20
B-122	25	¾″	¾″	¼″	2	¼″	2	20 x 20
B-123	40	¾″	¾″	¼″	2	¼″	3	20 x 20
B-151	20	¾″	¾″	¼″	1	¼″	2	16 x 25
B-152	40	¾″	¾″	¼″	2	¼″	6	16 x 20
B-182	60	¾″	¾″	¼″	3	¼″	6	20 x 20
B-212A	60	¾″	¾″	¼″	3	¼″	8	16 x 25
B-212B	60	¾″	¾″	¼″	3	¼″	12	16 x 20
B-302	75	¾″	¾″	¼″	4	¼″	12	20 x 20

All direct expansion cooling connections are stream line Mueller connections for O.D. tubing of size listed.

Cost water performance is based on quantity of water listed above.

Cold water cooling coil connections are male pipe threads.

Humidifier evaporation capacity based on 5 lbs. steam pressure for pan and coil type and 40 lbs. water pressure at nozzle for spray type.

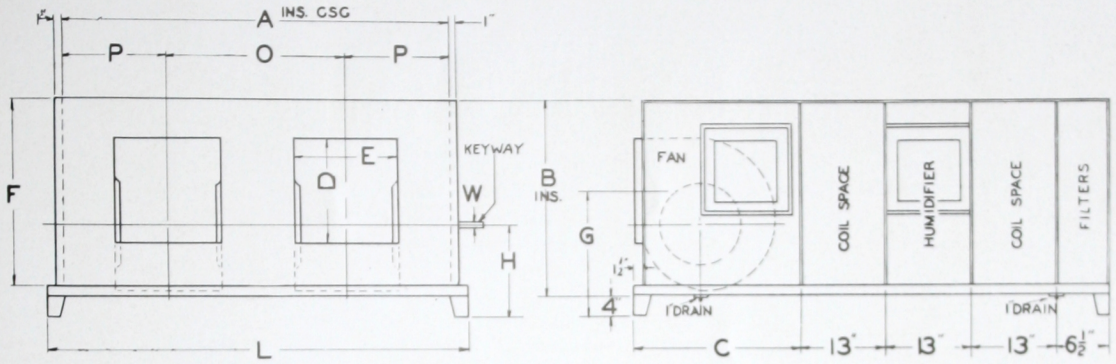
Humidifier steam and return connection are male pipe threads for size listed. Water connection is ¼″ female pipe tap on coil and pan type and ¼″ male pipe tap on spray type.

Heating coil connections are male pipe threads for sizes listed.

Specify when hot water is to be used on heating coils so that proper air vents may be furnished.

Cubic foot contents is total inside tube area for one row of coils deep.

DIMENSIONS — BUFFALO TYPE "PC" CENTRAL CONDITIONING CABINETS



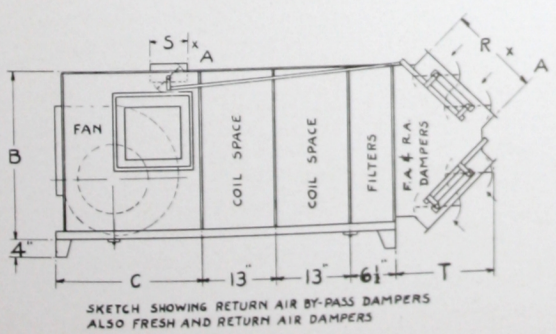
Size	No. Outlets	Sq. Ft. Outlet Area	A	B	C	D	E	F	G	H	L	O	P	W	Keyway	S	R	T
B-121	1	1.06	27″	21″	27″	12 3/8″	12 3/8″	19 3/4″	19″	15 5/16″	30″		13 1/2″	3/4″	3/8″ Flat	6″	12″	14″
B-122	2	2.12	47″	21″	27 1/2″	12 3/8″	12 3/8″	19 3/4″	19″	15 5/16″	50″	20″	13 1/2″	3/4″	3/8″ Flat	6″	12″	14″
B-123	3	3.18	64″	21″	27 1/2″	12 3/8″	12 3/8″	19 3/4″	19″	15 5/16″	67″	20″	12″	15/16″	3/8″ Flat	6″	12″	14″
B-151	1	1.80	33″	29 1/2″	26″	16 1/4″	16 1/8″	28 1/4″	21 7/16″	16 7/16″	36″		16 1/2″	15/16″	3/8″ Flat	6″	18″	18″
B-152	2	3.60	64″	29 1/2″	27 1/2″	16 1/4″	16 1/8″	28 1/4″	24 7/16″	19 7/16″	67″	27″	18 1/2″	1 3/16″	3/8″ Flat	6″	18″	18″
B-182	2	4.80	64″	41 1/2″	27 1/2″	18 11/16″	18 11/16″	40 1/4″	25 1/16″	18 1/16″	67″	32″	16″	1 3/16″	3/8″ Flat	12″	18″	18″
B-212A	2	7.07	64″	51″	40 1/2″	22 5/8″	22 5/8″	49 3/4″	27 5/8″	20 9/16″	67″	32″	16″	1 3/16″	3/8″ Flat	18″	24″	24″
B-212B	2	7.07	64″	61″	40 1/2″	22 5/8″	22 5/8″	59 3/4″	27 5/8″	20 9/16″	67″	32″	16″	1 3/16″	3/8″ Flat	18″	24″	24″
B-302	2	7.88	81″	61″	41 1/2″	22 1/4″	25 1/2″	59 3/4″	32″	20 5/8″	84″	40 1/2″	20 1/4″	1 5/8″	3/8″ x 3/16″	18″	24″	24″

Overall length of unit may be otained by summing the lengths of the individual sections.

All drip pans will have 1″ female connections for drain.

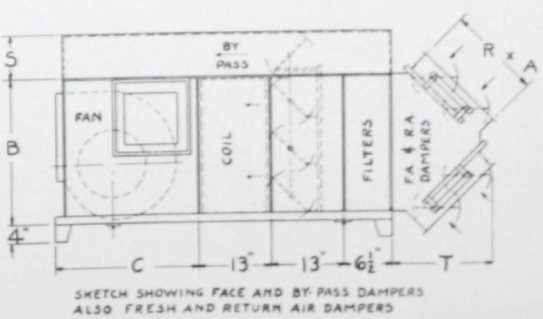
Average "V" belt center distance— Nos. B-121, B-122, B-123, B-151, B-152 ..... 10″
for estimating purposes only Nos. B-182, B-212A, B-212B ..... 12″
No. B-302 ..... 15″

STYLE "A" BY-PASS



SKETCH SHOWING RETURN AIR BY-PASS DAMPERS
ALSO FRESH AND RETURN AIR DAMPERS

STYLE "B" BY-PASS



SKETCH SHOWING FACE AND BY-PASS DAMPERS
ALSO FRESH AND RETURN AIR DAMPERS

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